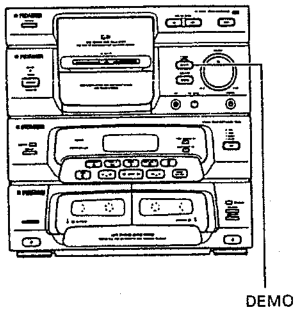
Service Manual

PIONEER
The Art of Entertainment



PION-05097

ORDER NO.
RRV1549

STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

XR-J2500F

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XR-J2500F		
KUXJ	○	AC120V	
KCXJ	○	AC120V	

- **For the circuit and mechanism descriptions, refer to the service guide RRV1430 for XR-P760F.** + 4890

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

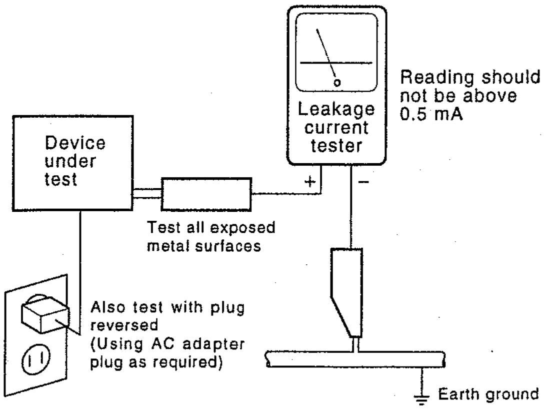
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
+
−
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

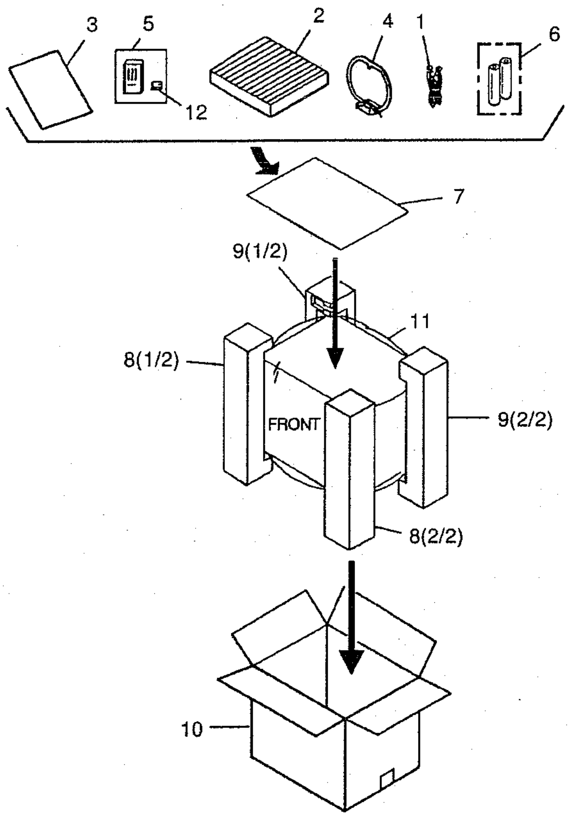
2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES :

- *Parts marked by* " NSP " *are generally unavailable because they are not in our Master Spare Parts List.*
- *The* ⚠ *mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by* " ◉ " *are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

2.1 PACKING

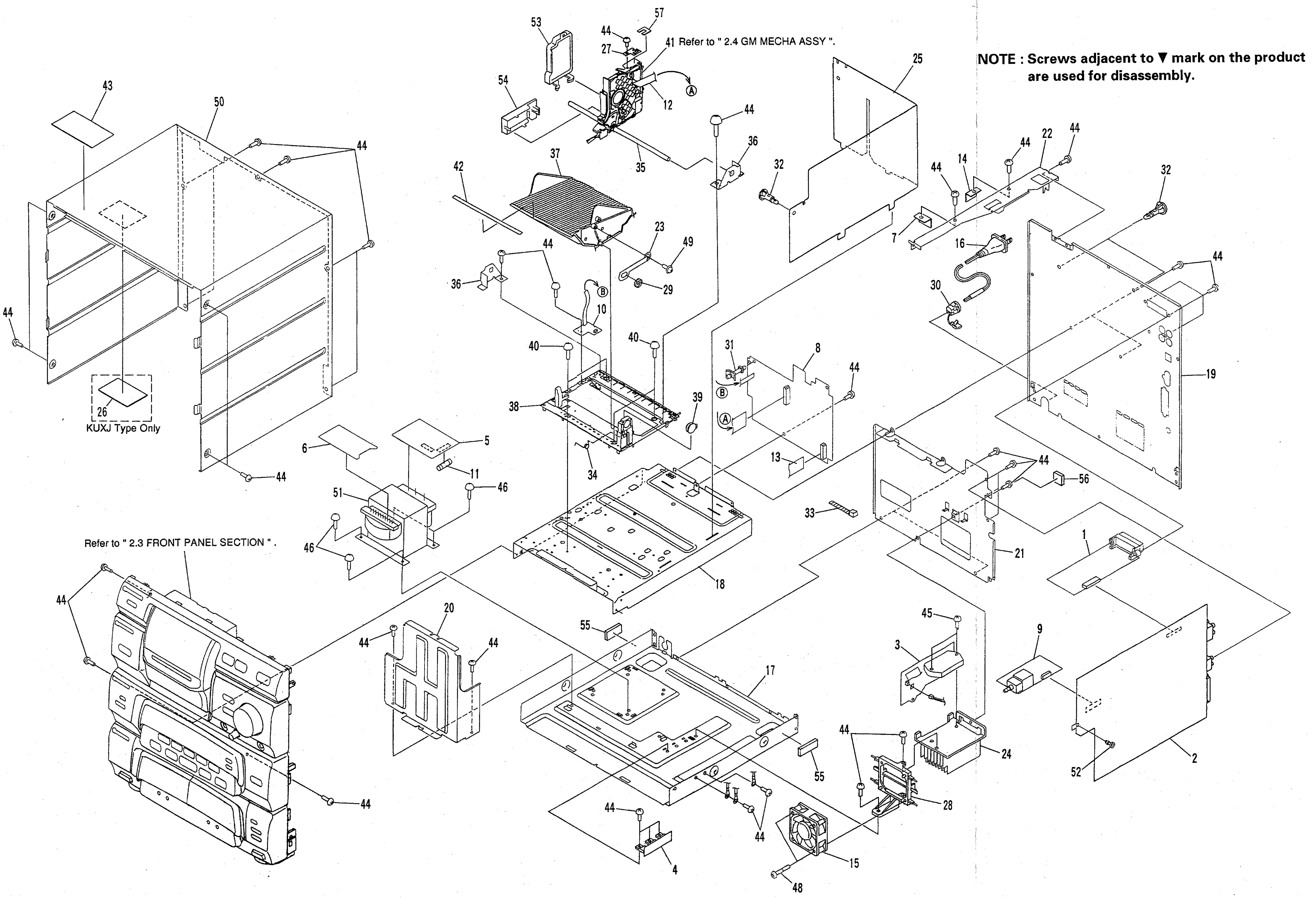
Mark	No.	Description	Parts No.
	1	FM ANTENNA	ADH1017
	2	CD CASE RACK	AMR7072
	3	OPERATING INSTRUCTIONS (English)	ARB7084
	3	OPERATING INSTRUCTIONS (French)(KCXJ only)	ARC7097
	4	LOOP ANTENNA	ATB7004
	5	REMOTECONTROL UNIT (CU-XR022)	AXD7078
NSP	6	BATTERY (R6P, AA)	VEM-013
NSP	7	POLYETHYLENE BAG (KUXJ type)	AHG7030
NSP	7	POLYETHYLENE BAG (KCXJ type)	AHG7032
	8	FRONT PAD LR	AHA7104
	9	REAR PAD LR	AHA7105
	10	PACKING CASE	AHD7239
	11	PACKING SHEET	AHG7025
	12	BATTERY COVER	AZA7123



2.2 EXTERIOR

Mark	No.	Description	Parts No.
	1	FM/AM TUNER MODULE	AXQ3112
	2	AF ASSY	AWZ8236
	3	AMP ASSY	AWZ8243
	4	REG ASSY	AWZ8247
NSP	5	PRIMARY ASSY	AWZ8252
NSP	6	SECONDARY ASSY	AWZ8259
	7	MECHA STOPPER	ANG7098
	8	GM-CD ASSY	AWZ8267
	9	VR ASSY	AWZ8274
NSP	10	HOME SW ASSY	AWZ8289
⚠	11	FUSE (4A, FU101)	REK1082
	12	22P F.F.C/30V	ADD7016
	13	19P F.F.C/30V	ADD7022
	14	SPACER	AEB7061
	15	DC FAN MOTOR	AXM7003
⚠	16	AC POWER CORD	PDG1057
NSP	17	CHASSIS	ANA7041
	18	SUB SHASSIS	ANA7038
	19	REAR PANEL (KUXJ type)	ANC7313
	19	REAR PANEL (KCXJ type)	ANC7362
	20	FRONT STAY	AND7017
	21	REAR STAY	AND7018
	22	HOME LOCK STAY	AND7012
	23	LINK M	ANG7076
	24	HEAT SINK	ANH7033
	25	CD COVER	AAK7204
	26	65 LABEL (KUXJ type only)	ORW1069
NSP	27	ASSIST ANGLE 2	ANB7065
	28	MOLD A	AMR7005
	29	LINK HOLDER	AMR7087
	30	STRAIN RELIEF	CM-22C
NSP	31	PCB HOLDER	PNW2174
NSP	32	LOCKING CARD SPACER	VEC1596
	33	BINDER	ZCA-SKB90BK
	34	RACK SPRING	ABH7057
	35	GUIDE SHAFT-25	ALA7007
	36	SHAFT HOLDER	ANB7021
	37	DISK RACK	ANW7069
	38	RACKBASE S	ANW7070
	39	DAMPER ASSY	AXA7018
	40	SCREW C	PBA1106
NSP	41	GM MECHA ASSY	AXA7026
	42	DISC RACK PANEL	AAK7251
	43	LABEL	ARW7016
	44	SCREW	BBZ30P080FZK
	45	SCREW	BBZ30P180FMC
	46	SCREW	BBZ40P080FZK
	47	SCREW	BPZ30P100FZK
	48	SCREW	BPZ30P350FZK
	49	SCREW	IBZ30P080FMC
	50	BONNET	ANE7124
⚠	51	POWER TRANSFORMER (T1) (KUXJ type)	ATS7099
⚠	51	POWER TRANSFORMER (T1) (KCXJ type)	ATS7100
	52	RIVET	AEC7025
	53	SERVO COVER	ANW7073
	54	NICE COVER	ANW7074
NSP	55	RUBBER SPACER	AEB7058
NSP	56	RUBBER SPACER	AEB7057
	57	SPACER	PNM1295

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.


41 Refer to " 2.4 GM MECHA ASSY ".

Refer to " 2.3 FRONT PANEL SECTION " .

KUXJ Type Only

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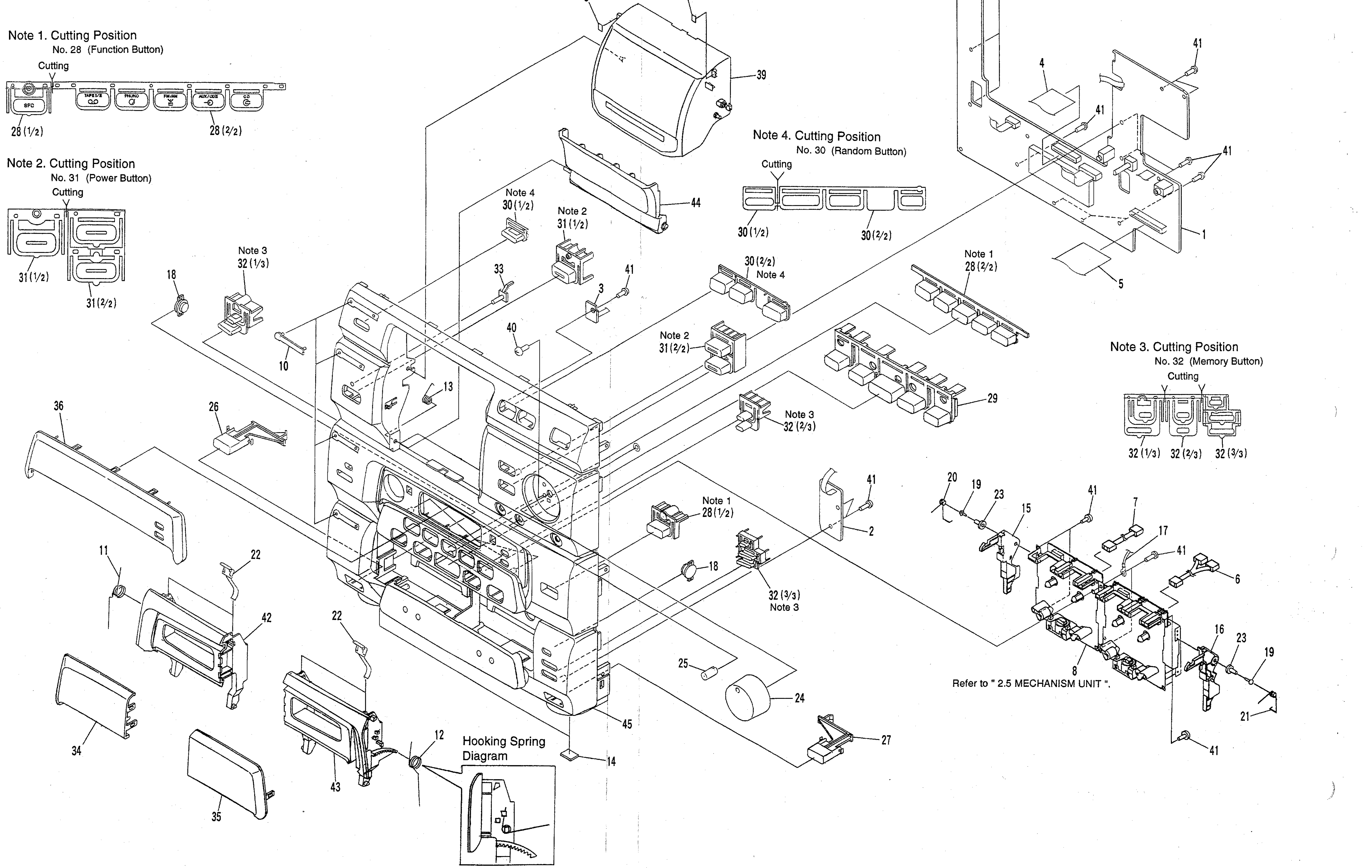
XR-J2500F

2.3 FRONT PANEL SECTION



Note 1. Cutting Position
No. 28 (Function Button)
Cutting
SFC
TAPE I/II
PHONO
FM/AM
AUX/CD II
CD
28 (1/2)
28 (2/2)
Note 2. Cutting Position
No. 31 (Power Button)
Cutting
31 (1/2)
31 (2/2)
Note 4. Cutting Position
No. 30 (Random Button)
Cutting
30 (1/2)
30 (2/2)
Note 3. Cutting Position
No. 32 (Memory Button)
Cutting
32 (1/3)
32 (2/3)
32 (3/3)
Note 4
30 (1/2)
Note 2
31 (1/2)
Note 3
32 (1/3)
30 (2/2)
Note 4
Note 1
28 (2/2)
Note 2
31 (2/2)
Note 3
32 (2/3)
Note 1
28 (1/2)
32 (3/3)
Note 3
Refer to " 2.5 MECHANISM UNIT ".
Hooking Spring Diagram
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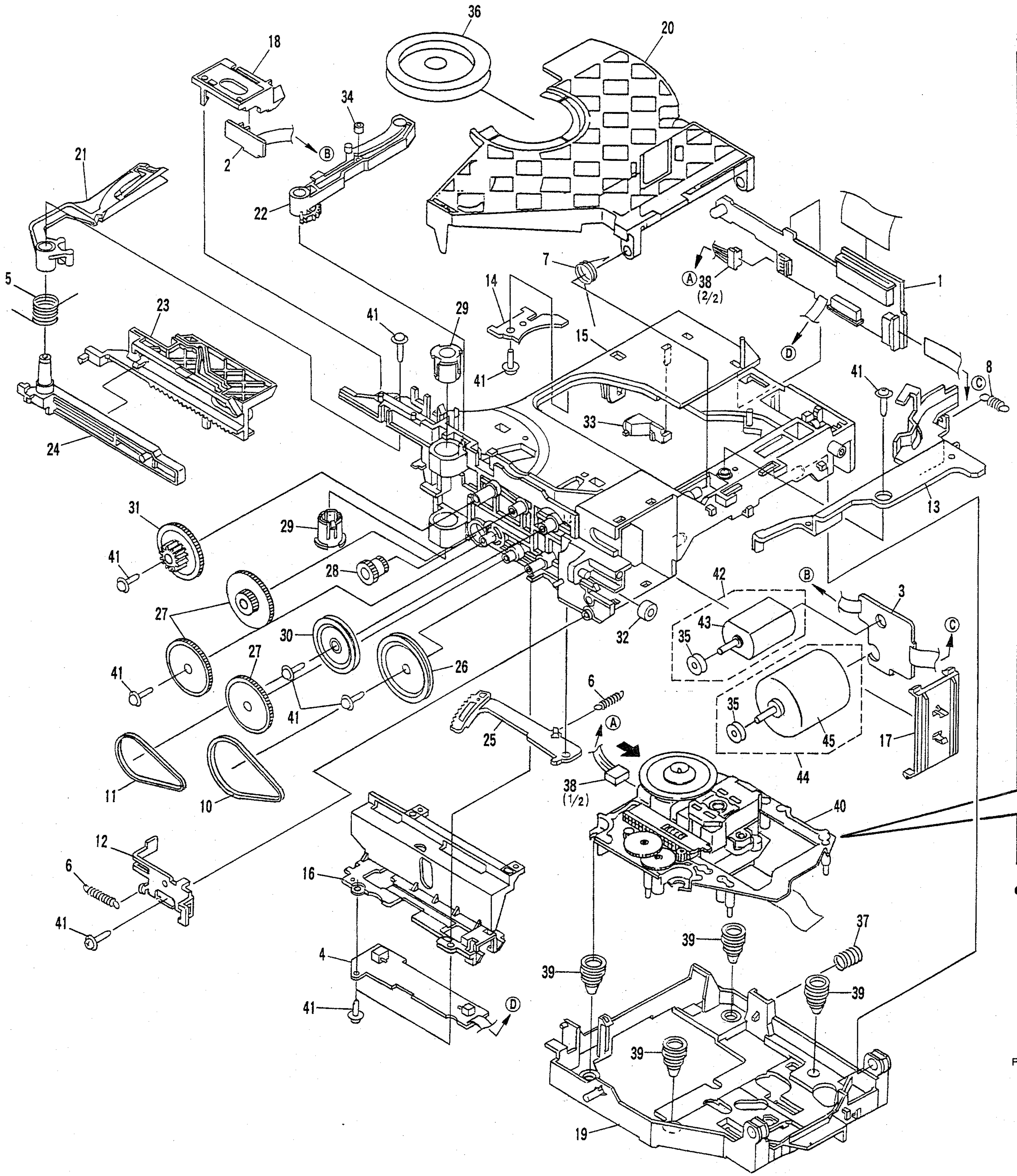
Mark	No.	Description	Parts No.
	1	FRONT ASSY	AWZ8281
NSP	2	TACT SW ASSY	AWZ8304
NSP	3	HOOD SW ASSY	AWZ8291
	4	28P F.F.C/30V	ADD7030
	5	35P F.F.C/30V	ADD7025
	6	CONNECTOR 5P	RKP1682
	7	CONNECTOR 3P	RKP1683
	8	MECHANISM UNIT	RYM1248
	9	RUBBER SHEET	AEB7054
	10	NAME PLATE	PAM1608
	11	DOOR SPLING L	ABH7116
	12	DOOR SPLING R	ABH7117
	13	DOOR SPRING D	ABH7097
	14	RUBBER SHEET	AEB1111
	15	EJECT ARM (L)	AMR7074
	16	EJECT ARM (R)	AMR7075
NSP	17	EARTH LEAD WIRE	DE025VF0
	18	DAMPER ASSY	AXA7021
	19	SCREW	BSZ20P120FMC
	20	EJECT SPRING (L)	ABH7102
	21	EJECT SPRING (R)	ABH7103
	22	SPRING	RBK1004
	23	COLLAR	RNK2135
	24	VOLUME KNOB	AAB7037
	25	MIC VOLUME KNOB	AAB7092
	26	EJECT BUTTON L	AAD7265
	27	EJECT BUTTON R	AAD7266
	28	FUNCTION BUTTON	AAD7260
	29	START BUTTON	AAD7261
	30	RANDOM BUTTON	AAD7262
	31	POWER BUTTON	AAD7263
	32	MEMORY BUTTON	AAD7264
	33	STA. LENS	AAK7210
	34	DOOR WINDOW L	AAK7228
	35	DOOR WINDOW R	AAK7229
	36	DISPLAY WINDOW D	AAK7227
	37	....	
	38	....	
	39	HOOD M	AAN7100
	40	SCREW	BBZ30P080FZK
	41	SCREW	BPZ30P080FMC
	42	DOOR PANEL L	AAN7131
	43	DOOR PANEL R	AAN7132
	44	DOOR D	AAN7133
	45	FRONT PANEL	AMB7344

2.4 GM MECHA ASSY

Mark	No.	Description	Parts No.
NSP	1	MECHA PCB ASSY	AWZ7835
NSP	2	SENSOR PCB ASSY	AWZ7836
NSP	3	MOTOR PCB ASSY	AWZ7837
NSP	4	SW PCB ASSY	AWZ7838
	5	ARM A SPRING 2	ABH7124
	6	GEAR PLATE SPRING	ABH7051
	7	CLAMP SPRING	ABH7107
	8	LOCK LEVER SPRING	ABH7120
	9	....	
	10	LOADING BELT	AEB7029
	11	BELT	AEB7030
NSP	12	LOCK ANGLE	ANB7027
NSP	13	LOCK LEVER P	ANB7042
NSP	14	SERVO STOPPER S	ANB7047
	15	LOADING BASE	ANW7051
	16	CAM COVER	ANW7052
	17	MOTOR HOLDER	ANW7053
	18	SENSOR HOLDER	ANW7054
	19	FLOAT BASE	ANW7055
	20	CLAMPER HOLDER	ANW7084
	21	ARM (A)	ANW7057
	22	ARM (B)	ANW7058
	23	DRIVE PLATE	ANW7059
	24	ARM PLATE	ANW7060
	25	GEAR PLATE	ANW7082
	26	GEAR PULLEY (B)	ANW7062
	27	GEAR A	ANW7063
	28	DRIVE GEAR	ANW7064
	29	BEARING	ANW7065
	30	GEAR PULLEY A	ANW7066
	31	SELECT GEAR	ANW7067
	32	ROLLER	ANW7068
	33	LED LENS	ANW7072
	34	ROLLER B	ANW7075
	35	MOTOR PULLEY	PNW1634
	36	CLAMPER	PNW7085
	37	FLOAT SPRING	ABH7049
	38	CONNECTOR ASSY (4P)	ADE7006
	39	FLOAT RUBBER	AEB7059
NSP	40	SERVO MECHANISM ASSY GM	AXA7028
	41	SCREW	IPZ20P080FMC
	42	MOTOR ASSY (SELECT)	AEA7005
NSP	43	MOTOR	PXM1002
	44	MOTOR ASSY	AEA7006
	45	LOADING MOTOR	VXM1034
	46	GEAR 1	PNW2052
	47	GEAR 2	PNW2053
	48	GEAR 3	PNW2054
	49	CARRIAGE BASE	PNW2445
	50	PICKUP ASSY	AEA7004

Mark	No.	Description	Parts No.
	51	D.C. MOTOR ASSY (SPDL)	PEA1235
	52	CARRIAGE DC MOTOR ASSY	PEA1246
	53	PINION GEAR	PNW2055
NSP	54	CARRIAGE DC MOTOR/0.3W	PXM1027
	55	DISC TABLE ASSY	PEA1314
	56	MECHANISM BOARD ASSY	PWX1192
	57	GUIDE BAR	PLA1094
	58	....	
	59	SCREW	JFZ17P025FZK
	60	SCREW	JFZ20P040FMC
	61	WASHER	WT12D032D025
	62	CLAMP MAGNET	PMF1014
	63	YOKE M	PNB1312
NSP	64	DISC TABLE	PNW2410
NSP	65	FLOAT ANGLE	ANB7020
	66	GEAR STOPPER	PNB1303
	67	SCREW	BPZ20P060FMC
	68	SCREW	BPZ26P100FMC
		FROIL (for service)	GYA1001
		HA NARL (for service)	GEM1016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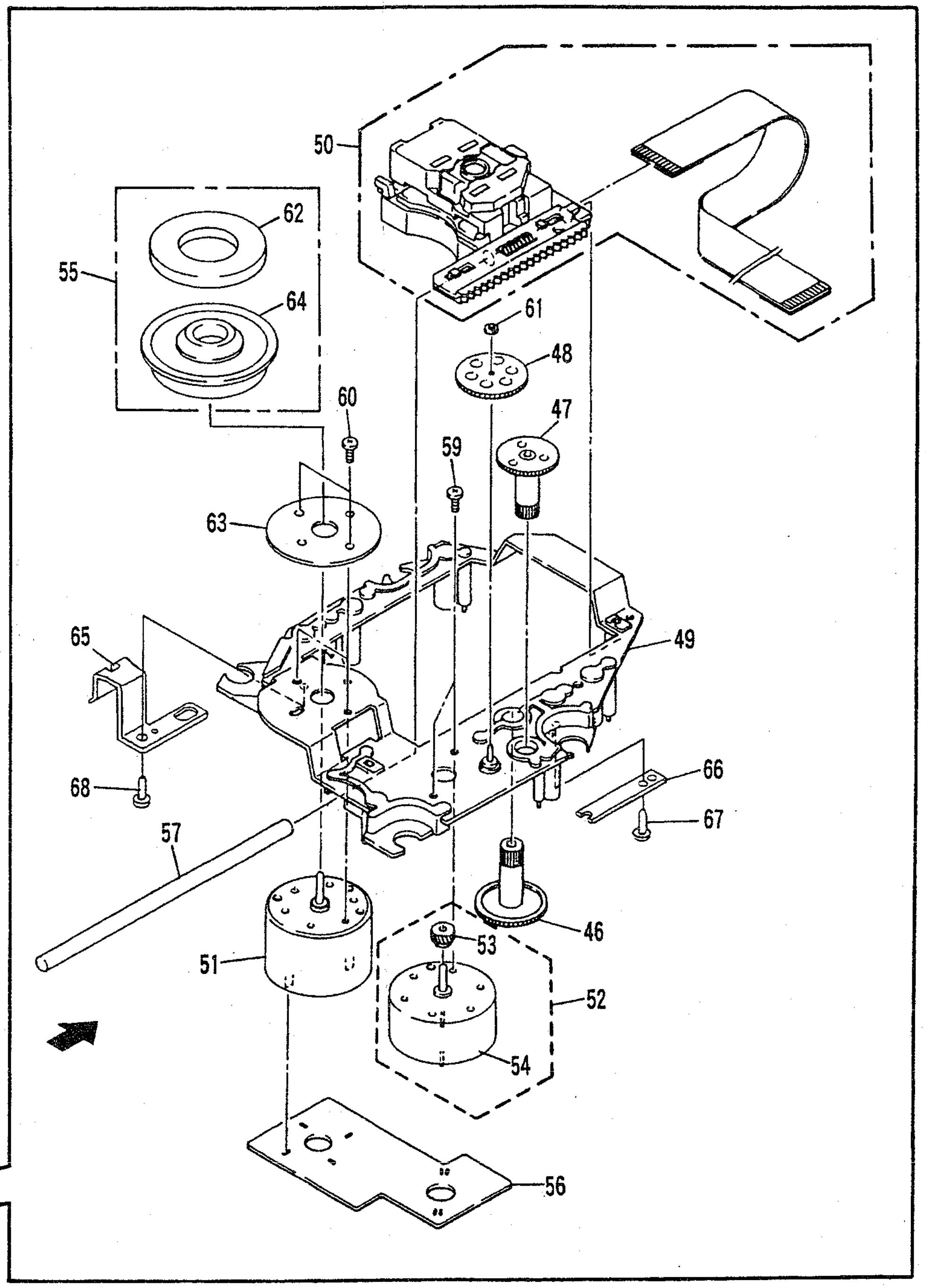
Servo Mechanism Assy GM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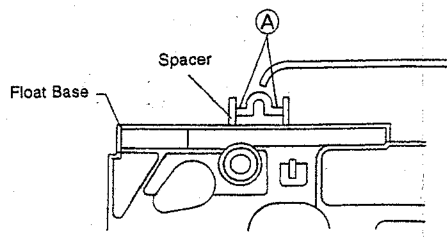
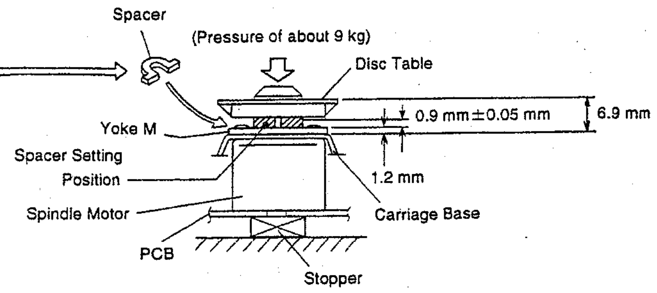
● How to install the disc table

1. Use nipper or other tool to cut the two sections marked Ⓐ figure 1.
   Then remove the spacer.
2. While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

1


Ⓐ
Spacer
Float Base

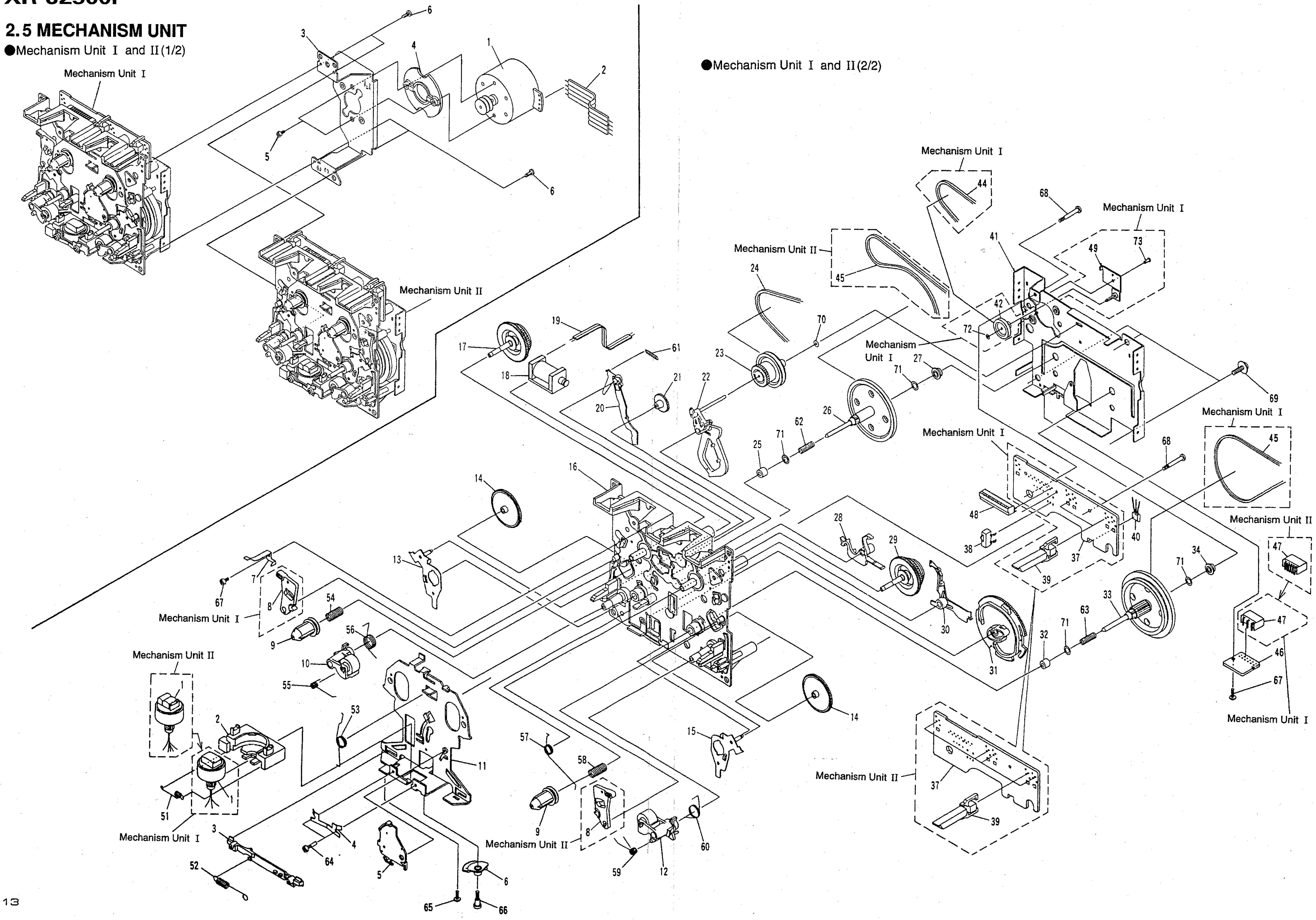
2


Spacer
(Pressure of about 9 kg)
Disc Table
0.9 mm±0.05 mm
6.9 mm
Yoke M
Spacer Setting
Position
1.2 mm
Spindle Motor
Carriage Base
PCB
Stopper

2.5 MECHANISM UNIT

●Mechanism Unit I and II(1/2)

●Mechanism Unit I and II(2/2)


Mechanism Unit I
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Mechanism Unit I
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■ Mechanism unit Ⅰ and Ⅱ (1/2)

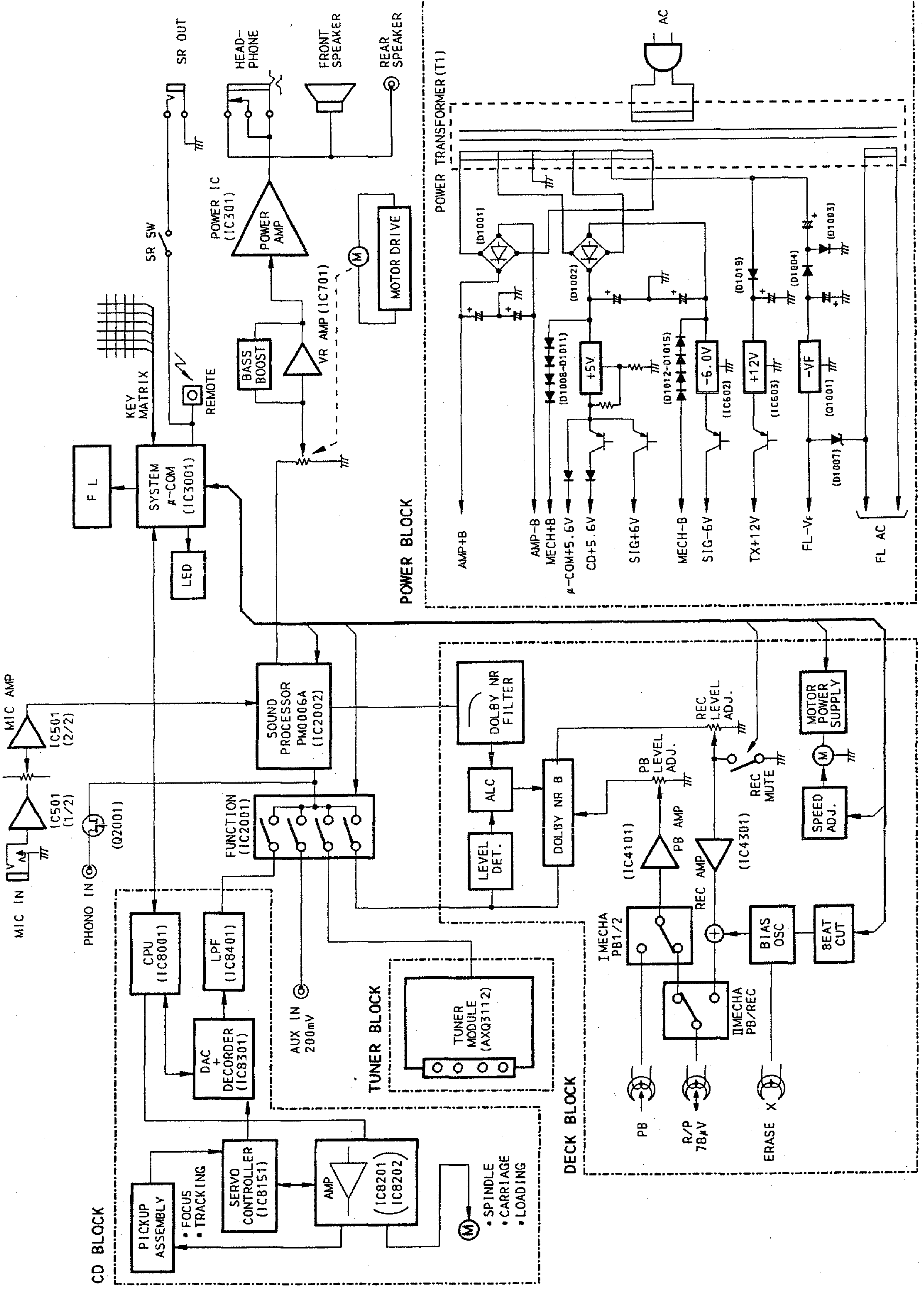
Mark	No.	Description	Parts No.
	1	ASSY MOTOR	RXM1080
NSP	2	JUMPER WIRE	RDD1012
	3	BRACKET MOTOR	RNE1830
	4	SPACER	RNK1822
	5	SCREW	RBA1100
	6	SCREW	PCZ20P040FMC

■ Mechanism unit Ⅰ and Ⅱ (2/2)

Mark	No.	Description	Parts No.
	1	ASSY HOLDER HEAD (*1)	RXA1400
	1	ASSY HOLDER HEAD (*2)	RXA1664
	2	FRAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASSY ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASSY PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASSY PINCH ARM R	RXA1404
	13	ARM PLAY L	RNK1866
	14	GEAR PLAY	RNK1867
	15	ARM PLAY R	RNK1868
	16	CHASSIS OS	RXA1411
	17	ASSY SUB REEL L	RXA1407
	18	SOLENOID	RXP1020
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASSY ARM FR	RXA1412
	23	ASSY PULLEY FR	RXA1413
	24	BELT FR	REB1292
	25	METAL	RNG1048
	26	ASSY FLYWHEEL L	RXA1690
	27	METAL	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASSY SUB REEL R	RXA1408
	30	ARM TRIGER	RNK1722
	31	GEAR CAM	RNK1725
	32	METAL	RNG1049
	33	ASSY FLYWHEEL R	RXA1691
	34	METAL	RNG1004
	35	....	
	36	....	
	37	P. C. BOARD	RNP1610
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC	DN6851A
	41	BRACKET FW (*1)	RNE1854
	41	BRACKET FW (*2)	RNE1438
	42	PULLEY (*1 only)	RNK2132
	43	....	
	44	BELT FW (*1 only)	REB1291
	45	BELT MAIN (* 1)	REB1290
	45	BELT MAIN (* 2)	REB1289
	46	P. C. BOARD	RNP1348
	47	HOUSING (*1)	RKP1396
	47	HOUSING (*2)	RKP1397
	48	CONNECTOR (*1)	RKP1713
	48	CONNECTOR (*2)	RKP1714
	49	ASSY HOLDER (*1 only)	RXA1689
	50	....	
	51	SPRING	RBH1282
	52	SPRING	RBH1283
	53	SPRING	RBH1284
	54	SPRING	RBH1286
	55	SPRING	RBH1288
	56	SPRING	RBH1291
	57	SPRING	RBH1285
	58	SPRING	RBH1287
	59	SPRING	RBH1289
	60	SPRING	RBH1290
	61	SPRING	RBH1292
	62	FWP SP (SPRING)	RBH1061
	63	SPRING	RBH1325
	64	SCREW (For AZIMUTH)	RBA1023
	65	SCREW	RBA1027
	66	SCREW	RBA1030
	67	SCREW	PCZ20P040FMC
	68	SCREW	RBA1093
	69	SCREW	RBA1094
	70	WASHER	RBF1046
	71	WASHER	WA26D047D013
	72	WASHER (*1 only)	WT13D030D025
	73	SCREW (*1 only)	RBA1118

*Note) *1: Mechanism Unit Ⅰ*
**2: Mechanism Unit Ⅱ*

3. BLOCK DIAGRAM

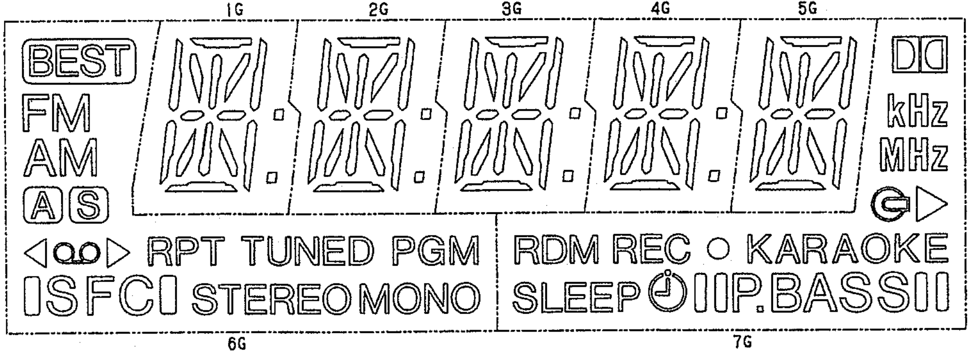

SR OUT
HEAD-PHONE
FRONT SPEAKER
REAR SPEAKER
AC
POWER TRANSFORMER (T1)
POWER IC (IC301)
POWER AMP
SR SW
M
MOTOR DRIVE
VR AMP (IC701)
BASS BOOST
KEY MATRIX
REMOTE
F L
SYSTEM µ-COM (IC3001)
LED
(D1001)
(D1002)
(D1008-D1011)
+5V
(D1012-D1015)
-6.0V
(IC602)
(D1019)
+12V
(IC603)
(D1004)
(D1003)
-VF
(Q1001)
(D1007)
AMP+B
AMP-B
MECH+B
µ-COM+5.6V
CD+5.6V
SIG+6V
MECH-B
SIG-6V
TX+12V
FL-VF
FL AC
POWER BLOCK
MIC AMP
IC501 (2/2)
IC501 (1/2)
MIC IN
(Q2001)
PHONO IN
SOUND PROCESSOR PM0006A (IC2002)
FUNCTION (IC2001)
DOLBY NR FILTER
ALC
LEVEL DET.
DOLBY NR B
PB LEVEL ADJ.
REC LEVEL ADJ.
REC MUTE
MOTOR POWER SUPPLY
M
SPEED ADJ.
(IC4101)
PB AMP
REC AMP
(IC4301)
BIAS OSC
BEAT CUT
I MECHA PB1/2
II MECHA PB/REC
PB
R/P 78µV
ERASE
DECK BLOCK
AUX IN 200mV
TUNER BLOCK
TUNER MODULE (AXQ3112)
CPU (IC8001)
LPF (IC8401)
DAC + DECORDER (IC8301)
SERVO CONTROLLER (IC8151)
AMP
(IC8201)
(IC8202)
PICKUP ASSEMBLY
• FOCUS
• TRACKING
M
• SPINDLE
• CARRIAGE
• LOADING
CD BLOCK

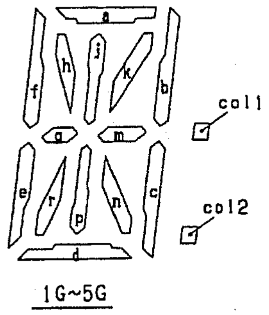
4. FL INFORMATION

■ AAV7024 (V401: DISPLAY ASSY)

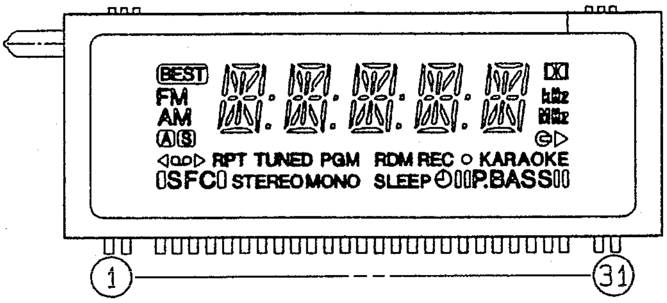
● FL Tube

● Grid assignment


1G
2G
3G
4G
5G
BEST
FM
AM
A
S
kHz
MHz
RPT TUNED PGM
RDM REC
KARAOKE
SFC
STEREO MONO
SLEEP
P.BASS
6G
7G


a
h
j
k
b
f
g
m
col1
col2
e
r
p
n
c
d
1G~5G

● Pin Assignment


BEST
FM
AM
kHz
MHz
RPT TUNED PGM
RDM REC
KARAOKE
SFC
STEREO MONO
SLEEP
P.BASS
①
㉛

● Pin Connection

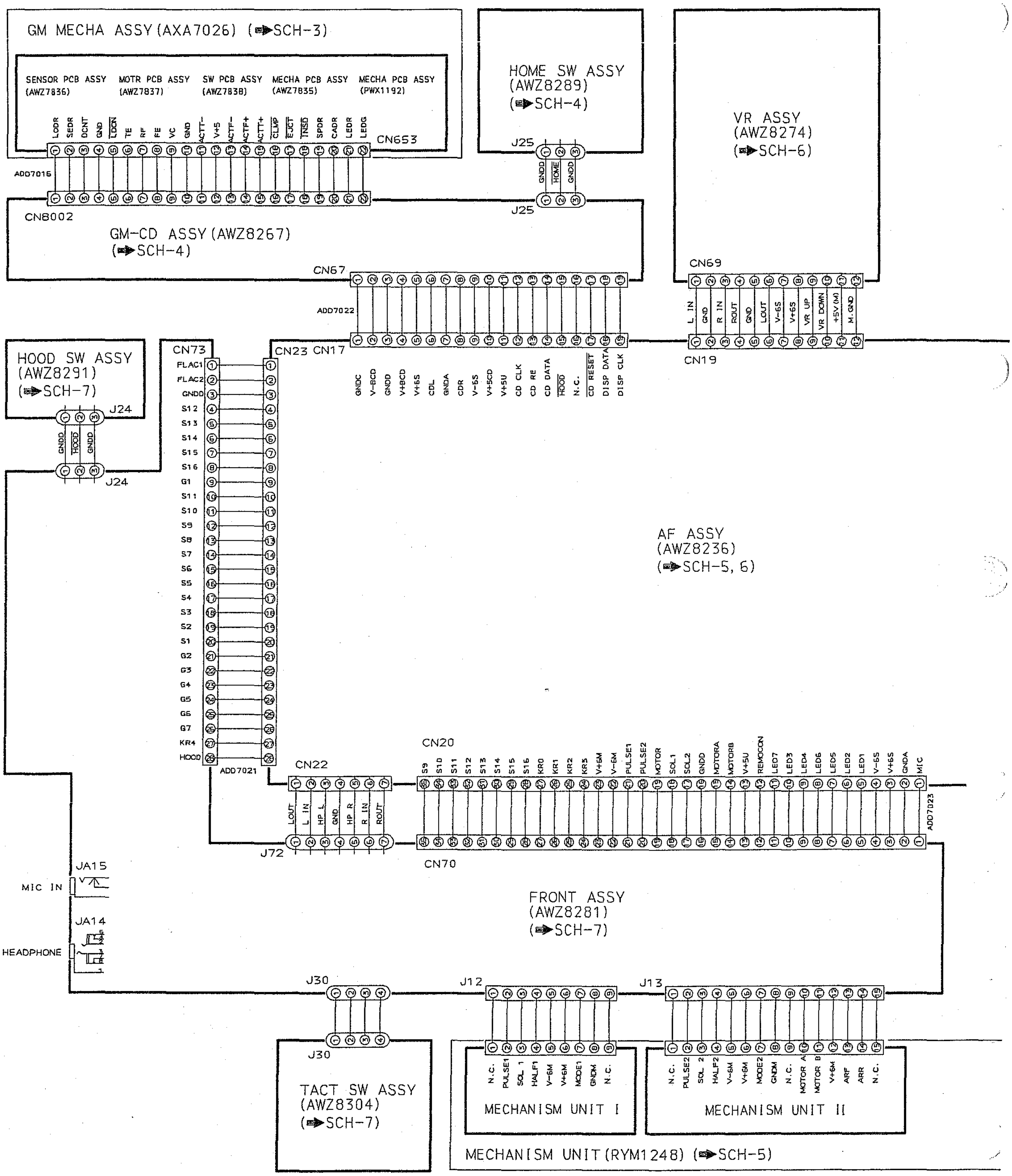
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Assignment	F	F	NP	P12	P13	P14	P15	P16	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NL	NL	1G	2G	3G	4G	5G	6G	7G	NP	F	F

● Anode Connection

	1G~4G	5G	6G	7G
P1	col2		AM	KARAOKE
P2	d	d	FM	REC
P3	n	n		⏲
P4	p	p	BEST	DD
P5	r	r	TUNED	▷
P6	e	e	S	○
P7	c	c	A	RDM
P8	g	g	◁	SLEEP
P9	m	m	▷	▯ ▯
P10	f	f	▯ SFC ▯	▯ P. BASS ▯
P11	b	b	PGM	kHz
P12	k	k	STEREO	MHz
P13	j	j	RPT	⊖
P14	h	h	MONO	
P15	a	a	ꝏ	
P16	col1			

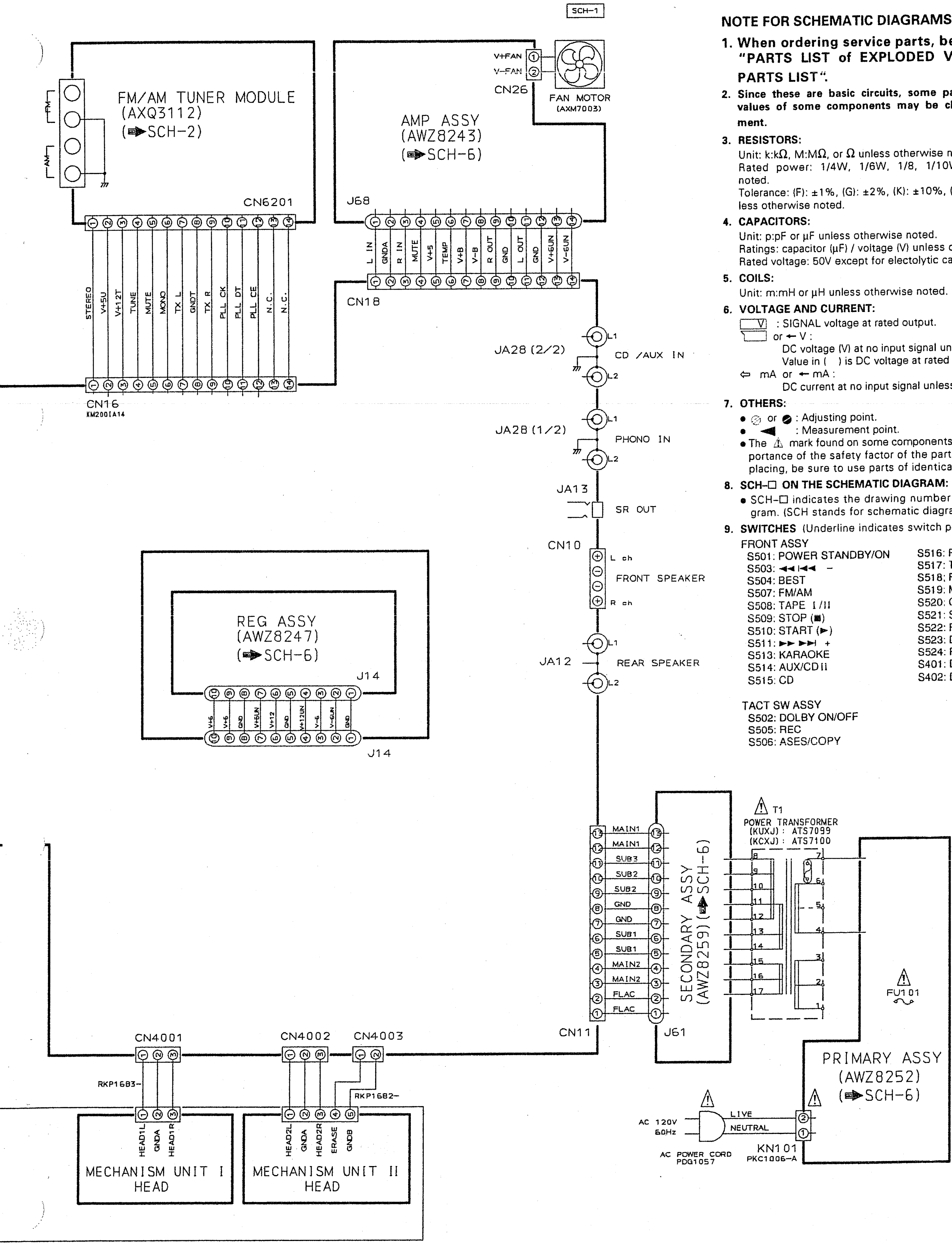
5. SCHEMATIC AND PCB CONNECTION DIAGRAMS

5.1 OVERALL SCHEMATIC DIAGRAM


GM MECHA ASSY (AXA7026) (➡SCH-3)
SENSOR PCB ASSY (AWZ7836)
MOTR PCB ASSY (AWZ7837)
SW PCB ASSY (AWZ7838)
MECHA PCB ASSY (AWZ7835)
MECHA PCB ASSY (PWX1192)
LODR
SEDR
DCNT
GND
LDON
TE
RF
FE
VC
GND
ACTT−
V+5
ACTF−
ACTF+
ACTT+
CLMP
EJCT
INSD
SPDR
CADR
LEDR
LEDG
CN653
ADD7016
CN8002
GM-CD ASSY (AWZ8267)
(➡SCH-4)
HOME SW ASSY
(AWZ8289)
(➡SCH-4)
J25
GNDD
HOME
GNDD
J25
VR ASSY
(AWZ8274)
(➡SCH-6)
CN67
ADD7022
CN23 CN17
GNDC
V−BCD
GNDD
V+BCD
V+6S
CDL
GNDA
CDR
V−6S
V+5CD
V+5U
CD CLK
CD RE
CD DATA
HOOD
N.C.
CD RESET
DISP DATA
DISP CLK
CN69
L IN
GND
R IN
ROUT
GND
LOUT
V−6S
V+6S
VR UP
VR DOWN
+5V (M)
M.GND
CN19
HOOD SW ASSY
(AWZ8291)
(➡SCH-7)
J24
GNDD
HOOD
GNDD
J24
CN73
FLAC1
FLAC2
GNDD
S12
S13
S14
S15
S16
G1
S11
S10
S9
S8
S7
S6
S5
S4
S3
S2
S1
G2
G3
G4
G5
G6
G7
KR4
HOOD
ADD7021
AF ASSY
(AWZ8236)
(➡SCH-5, 6)
CN22
LOUT
L IN
HP L
GND
HP R
R IN
ROUT
J72
CN20
S9
S10
S11
S12
S13
S14
S15
S16
KR0
KR1
KR2
KR5
V+6M
V−6M
PULSE1
PULSE2
MOTOR
SOL1
SOL2
GNDD
MOTORA
MOTORB
V+5U
REMOCON
LED7
LED3
LED4
LED6
LED5
LED2
LED1
V−6S
V+6S
GNDA
MIC
ADD7023
CN70
JA15
MIC IN
JA14
HEADPHONE
FRONT ASSY
(AWZ8281)
(➡SCH-7)
J30
J12
J13
J30
TACT SW ASSY
(AWZ8304)
(➡SCH-7)
N.C.
PULSE1
SOL 1
HALF1
V−6M
V+6M
MODE1
GNDM
N.C.
MECHANISM UNIT I
N.C.
PULSE2
SOL 2
HALF2
V−6M
V+6M
MODE2
GNDM
N.C.
MOTOR A
MOTOR B
V+6M
ARF
ARR
N.C.
MECHANISM UNIT II
MECHANISM UNIT (RYM1248) (➡SCH-5)

SCH-1

OVERALL SCHEMATIC DIAGRAM


SCH-1
FM/AM TUNER MODULE (AXQ3112) (➡SCH-2)
FM
AM
CN6201
STEREO
V+5U
V+12T
TUNE
MUTE
MONO
TX L
GNDT
TX R
PLL CK
PLL DT
PLL CE
N.C.
N.C.
CN16
XM2001A14
AMP ASSY (AWZ8243) (➡SCH-6)
V+FAN
V-FAN
CN26
FAN MOTOR (AXM7003)
J68
L IN
GNDA
R IN
MUTE
V+5
TEMP
V+8
V-8
R OUT
GND
L OUT
GND
V+6UN
V-6UN
CN18
JA28 (2/2)
CD /AUX IN
JA28 (1/2)
PHONO IN
L1
L2
JA13
SR OUT
CN10
L ch
R ch
FRONT SPEAKER
JA12
REAR SPEAKER
REG ASSY (AWZ8247) (➡SCH-6)
J14
V+6
V-6
GND
V+6UN
V+12
GND
V+12UN
V-6
V-6UN
GND
J14
MAIN1
MAIN1
SUB3
SUB2
SUB2
GND
GND
SUB1
SUB1
MAIN2
MAIN2
FLAC
FLAC
CN11
J61
SECONDARY ASSY (AWZ8259) (➡SCH-6)
T1
POWER TRANSFORMER
(KUXJ) : ATS7099
(KCXJ) : ATS7100
FU101
PRIMARY ASSY (AWZ8252) (➡SCH-6)
AC 120V 60Hz
LIVE
NEUTRAL
AC POWER CORD PDG1057
KN101
PKC1006-A
CN4001
CN4002
CN4003
RKP1683
RKP1682
HEAD1L
GNDA
HEAD1R
HEAD2L
GNDA
HEAD2R
ERASE
GNDB
MECHANISM UNIT I HEAD
MECHANISM UNIT II HEAD

NOTE FOR SCHEMATIC DIAGRAMS

(TYPE 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF) / voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭V : SIGNAL voltage at rated output.
   ▭ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ● : Adjusting point.
   - ◀ : Measurement point.
   - The ⚠ mark found on some components parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH-□ ON THE SCHEMATIC DIAGRAM:**
   - SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FRONT ASSY
S501: POWER STANDBY/ON
S503: ◀◀ I◀◀ –
S504: BEST
S507: FM/AM
S508: TAPE I/II
S509: STOP (■)
S510: START (▶)
S511: ▶▶ ▶▶I +
S513: KARAOKE
S514: AUX/CD II
S515: CD
S516: P.BASS (DEMO)
S517: TIMER REC/WAKE UP
S518: FREQ/STATION
S519: MEMORY
S520: CLOCK/CLOCK ADJ
S521: SFC
S522: RANDOM
S523: DISPLAY
S524: PHONO
S401: DISC SELECTOR (+)
S402: DISC SELECTOR (–)

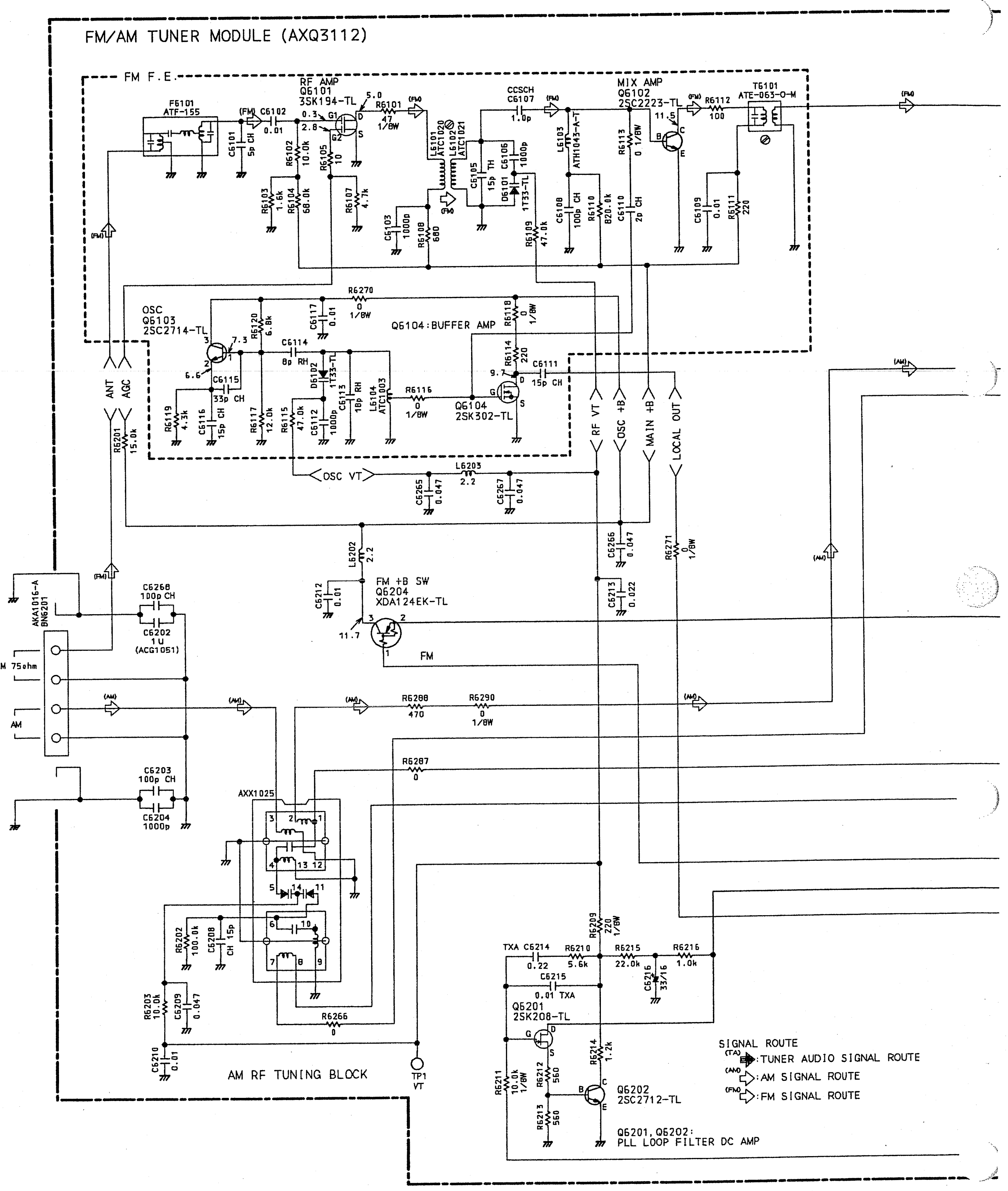
TACT SW ASSY
S502: DOLBY ON/OFF
S505: REC
S506: ASES/COPY

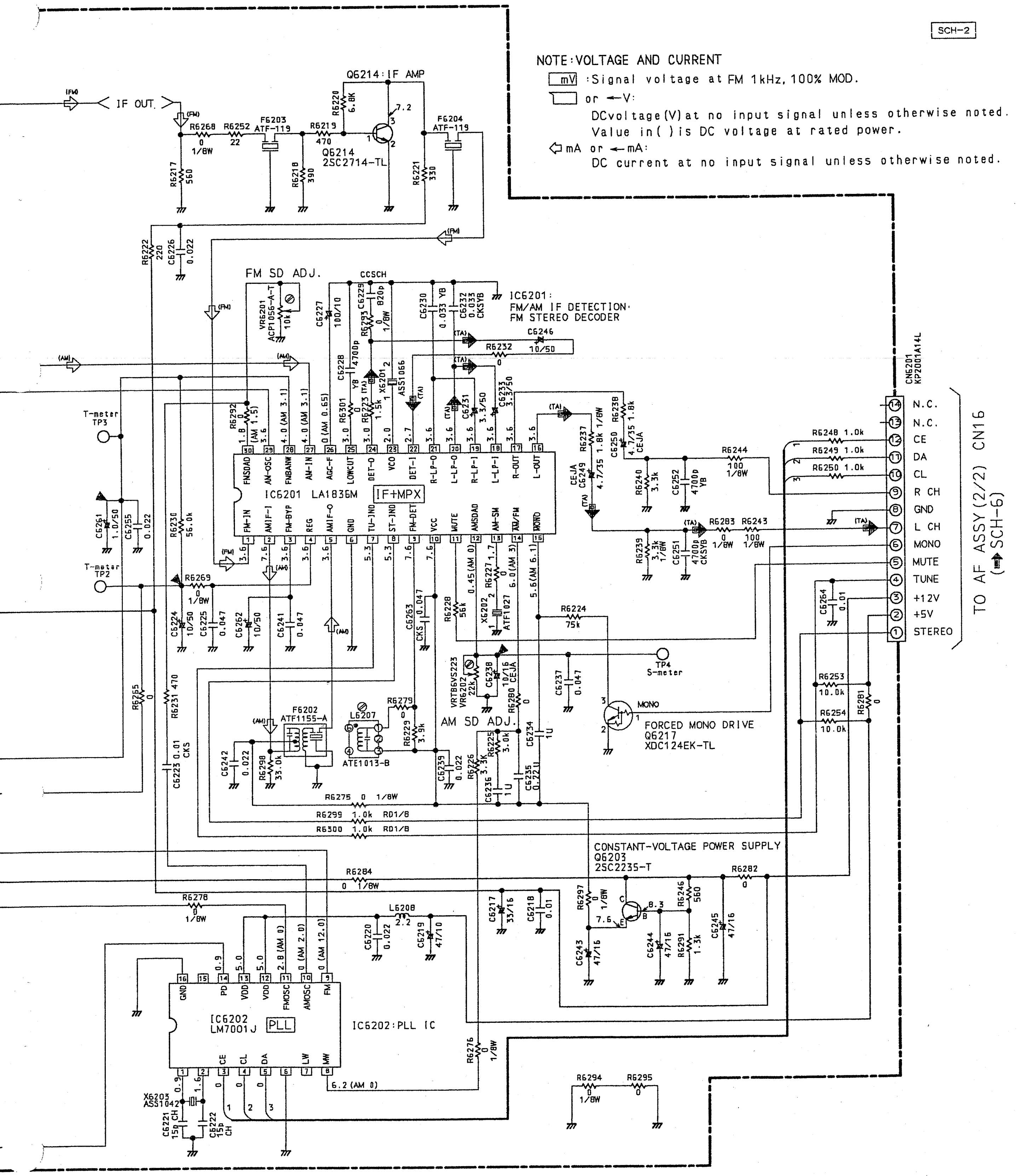
OVERALL SCHEMATIC DIAGRAM

SCH–1

XR-J2500F

5.2 FM/AM TUNER MODULE


FM/AM TUNER MODULE (AXQ3112)
FM F.E.
F6101
ATF-155
RF AMP
Q6101
3SK194-TL
C6101
5p CH
C6102
0.01
R6101
47
1/8W
R6102
10.0k
R6103
1.6k
R6104
68.0k
R6105
10
R6107
4.7k
L6101
ATC1020
L6102
ATC1021
C6103
1000p
R6108
680
CCSCH
C6107
1.0p
C6105
15p
TH
C6106
1000p
D6101
1T33-TL
R6109
47.0k
L6103
ATH1043-A-T
C6108
100p CH
R6110
820.0k
R6113
0 1/8W
C6110
2p CH
MIX AMP
Q6102
2SC2223-TL
R6112
100
T6101
ATE-063-O-M
C6109
0.01
R6111
220
OSC
Q6103
2SC2714-TL
R6270
0
1/8W
R6120
6.8k
C6117
0.01
Q6104:BUFFER AMP
R6118
0
1/8W
C6114
8p RH
D6102
1T33-TL
C6115
33p CH
R6119
4.3k
C6116
15p CH
R6117
12.0k
R6115
47.0k
C6112
1000p
C6113
18p RH
L6104
ATC1003
R6116
0
1/8W
Q6104
2SK302-TL
R6114
220
C6111
15p CH
ANT
AGC
RF VT
OSC +B
MAIN +B
LOCAL OUT
R6201
15.0k
OSC VT
L6203
2.2
C6265
0.047
C6267
0.047
C6266
0.047
R6271
0
1/8W
L6202
2.2
C6212
0.01
FM +B SW
Q6204
XDA124EK-TL
FM
C6213
0.022
AKA1016-A
BN6201
C6268
100p CH
C6202
1U
(ACG1051)
FM 75ohm
AM
C6203
100p CH
C6204
1000p
R6288
470
R6290
0
1/8W
R6287
0
AXX1025
R6202
100.0k
C6208
CH 15p
R6203
10.0k
C6209
0.047
R6266
0
C6210
0.01
AM RF TUNING BLOCK
TP1
VT
R6209
220
1/8W
TXA C6214
0.22
R6210
5.6k
R6215
22.0k
R6216
1.0k
C6216
33/16
C6215
0.01 TXA
Q6201
2SK208-TL
R6211
10.0k
1/8W
R6212
560
R6213
560
R6214
1.2k
Q6202
2SC2712-TL
SIGNAL ROUTE
(TA) :TUNER AUDIO SIGNAL ROUTE
(AM) :AM SIGNAL ROUTE
(FM) :FM SIGNAL ROUTE
Q6201, Q6202:
PLL LOOP FILTER DC AMP


SCH-2
IF OUT
Q6214: IF AMP
Q6214 2SC2714-TL
F6203 ATF-119
F6204 ATF-119
FM SD ADJ.
VR6201 ACP1056-A-T 10k
IC6201: FM/AM IF DETECTION· FM STEREO DECODER
IC6201 LA1836M
IF+MPX
FMSDAD
AM-OSC
FMBANW
AM-IN
AGC-F
LOWCUT
DET-O
VCO
DET-I
R-LP-O
L-LP-O
R-LP-I
L-LP-I
R-OUT
L-OUT
FM-IN
AMIF-I
FM-BYP
REG
AMIF-O
GND
TU-IND
ST-IND
FM-DET
VCC
MUTE
AMSDAD
AM-SM
AM/FM
MONO
T-meter TP3
T-meter TP2
TP4 S-meter
F6202 ATF1155-A
L6207 ATE1013-B
AM SD ADJ.
VR6202 VRTB6VS223 22k
X6201 ASS1066
X6202 ATF1027
MONO
FORCED MONO DRIVE
Q6217 XDC124EK-TL
CONSTANT-VOLTAGE POWER SUPPLY
Q6203 2SC2235-T
L6208 2.2
IC6202 LM7001J
PLL
IC6202: PLL IC
GND
PD
VDD
FMOSC
AMOSC
FM
CE
CL
DA
LW
MW
X6203 ASS1042
CN6201 KP2001A14L
N.C.
N.C.
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
TO AF ASSY (2/2) CN16 (➡SCH-6)

NOTE: VOLTAGE AND CURRENT

mV : Signal voltage at FM 1kHz, 100% MOD.

or ←V:
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.

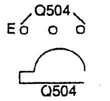
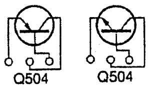
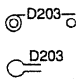
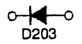
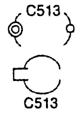
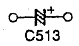
⇦mA or ←mA:
DC current at no input signal unless otherwise noted.

SCH-2

FM/AM TUNER MODULE

NOTE FOR PCB DIAGRAMS:

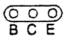
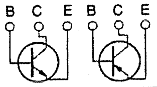
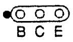
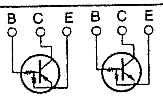
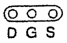
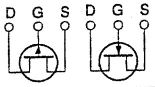
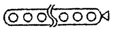
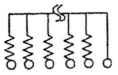
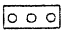
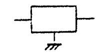
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

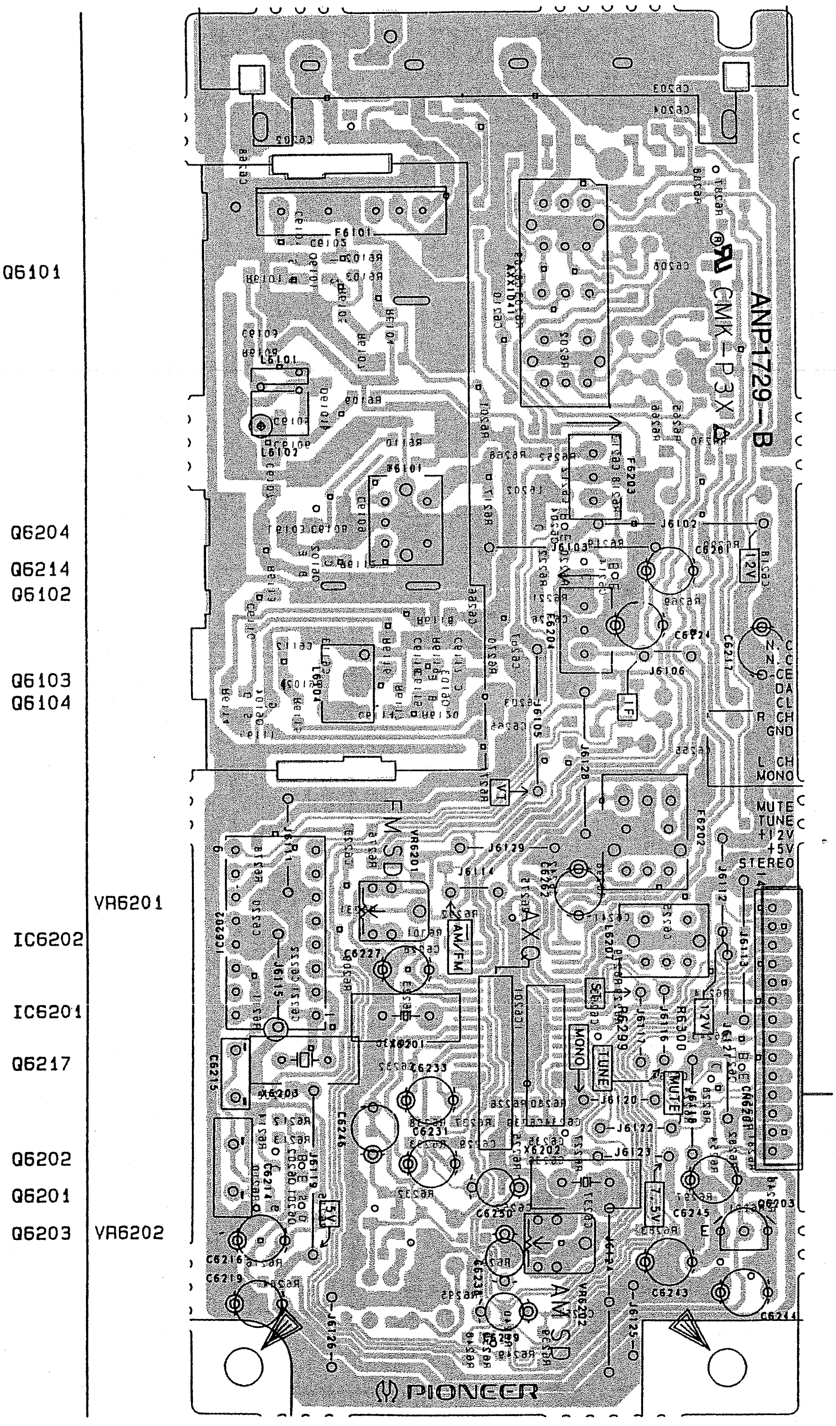
3. The transistor terminal marked with E or ⊏ shows the emitter
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

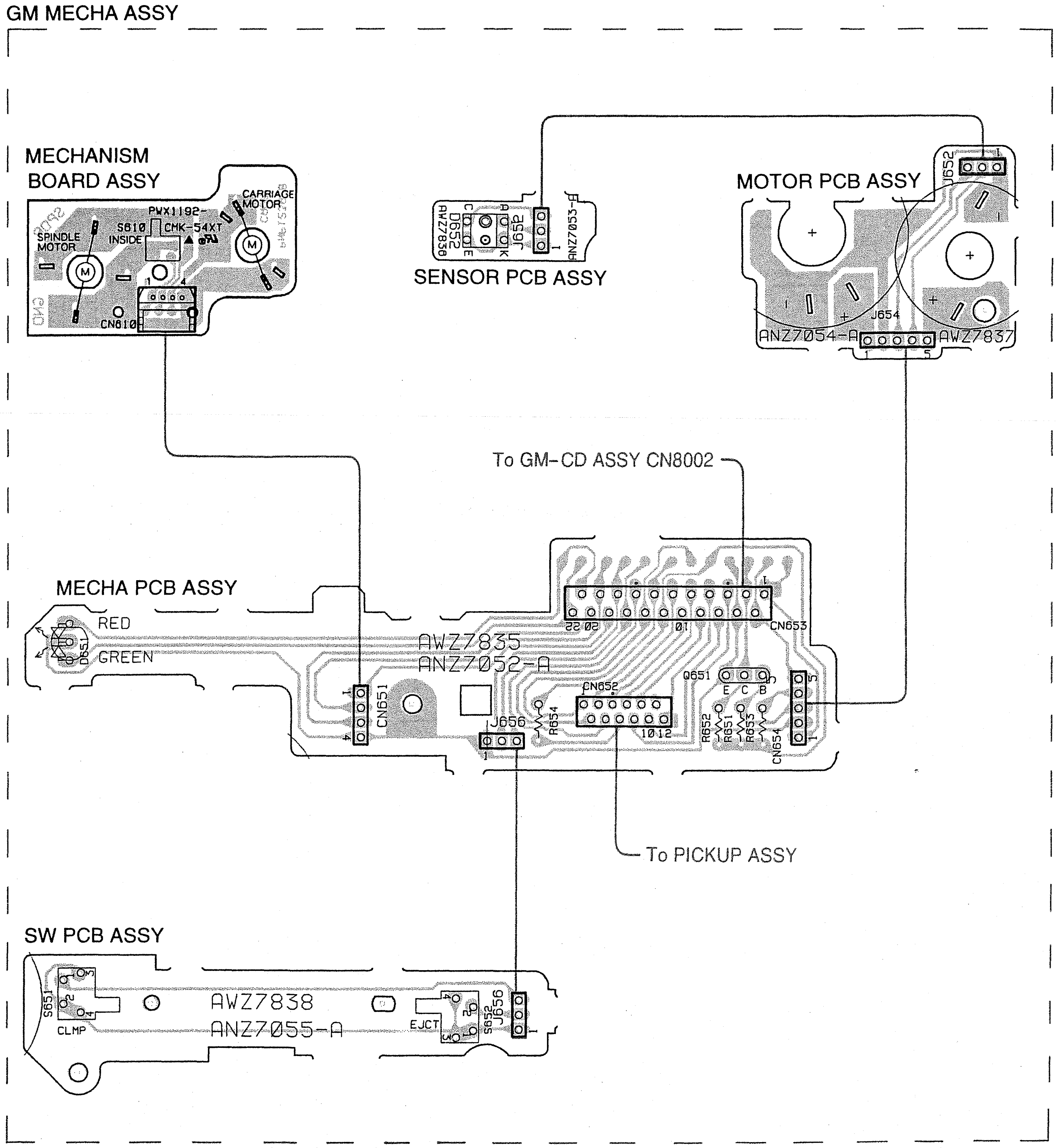
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3- terminal regulator

FM/AM TUNER MODULE


Q6101
Q6204
Q6214
Q6102
Q6103
Q6104
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201
Q6203
VR6202
ANP1729-B
CMK-P3X
FM SD
AXQ
AM/FM
AM SD
MONO
TUNE
MUTE
12V
5V
7.5V
N.C
N.C
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
PIONEER
To AF ASSY CN16

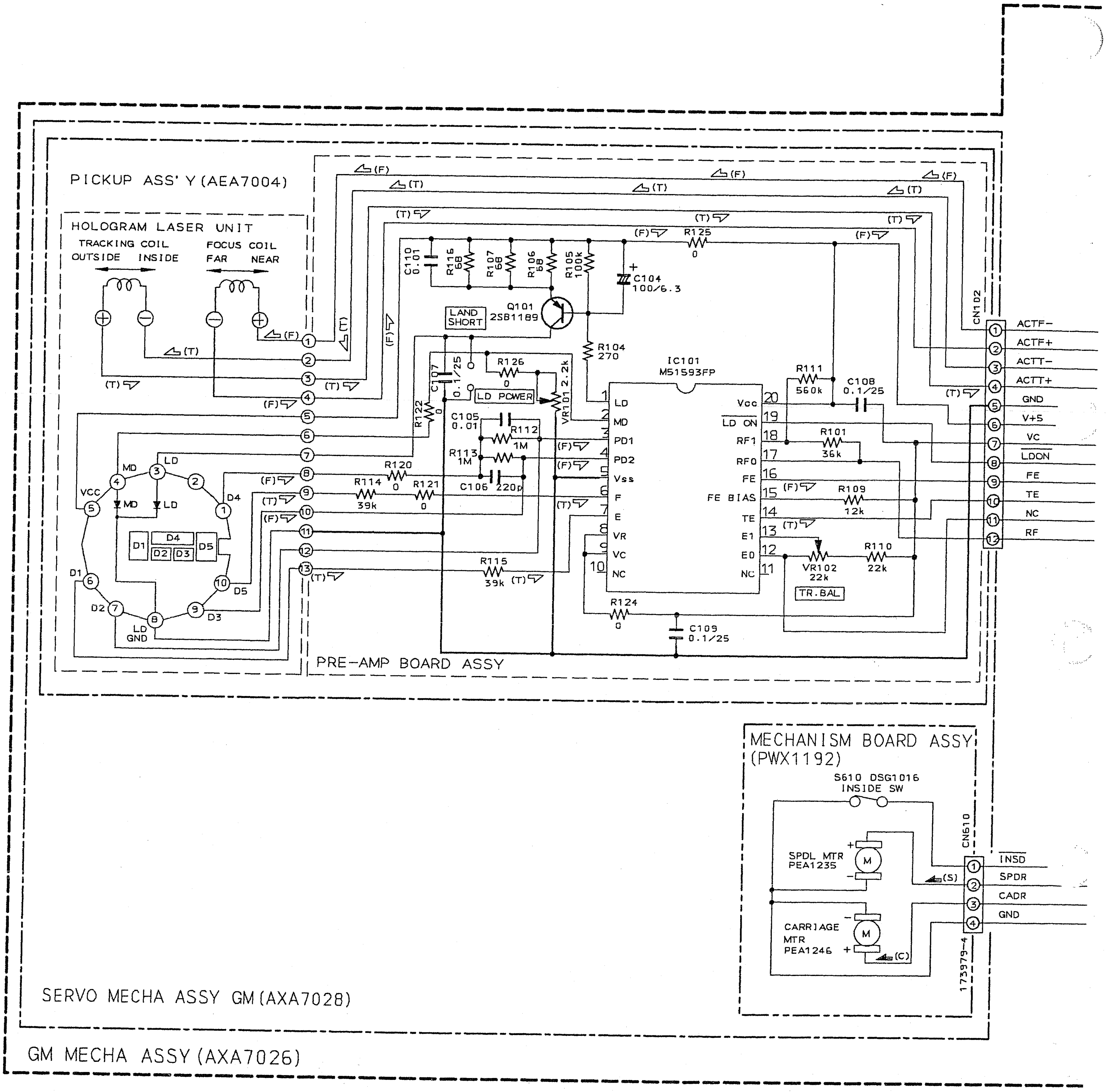
- This diagram is viewed from the mounted parts side.

5.3 GM MECHA ASSY


GM MECHA ASSY
MECHANISM BOARD ASSY
SPINDLE MOTOR
PWX1192-
S810 INSIDE
CMK-54XT
CARRIAGE MOTOR
CN810
SENSOR PCB ASSY
D652
J652
AWZ7836
ANZ7053-A
MOTOR PCB ASSY
J652
J654
ANZ7054-A
AWZ7837
To GM-CD ASSY CN8002
MECHA PCB ASSY
RED
GREEN
D651
AWZ7835
ANZ7052-A
CN651
CN652
CN653
CN654
J656
Q651
R651
R652
R653
R654
To PICKUP ASSY
SW PCB ASSY
S651
CLMP
AWZ7838
ANZ7055-A
EJCT
S652
J656

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.


PICKUP ASS'Y (AEA7004)
HOLOGRAM LASER UNIT
TRACKING COIL
OUTSIDE INSIDE
FOCUS COIL
FAR NEAR
MD
LD
VCC
D1
D2
D3
D4
D5
LD GND
PRE-AMP BOARD ASSY
C110 0.01
R116 68
R107 68
R106 68
R105 100k
C104 100/6.3
R125 0
Q101 2SB1189
LAND SHORT
R104 270
C107 0.1/25
R126 0
LD POWER
VR101 2.2k
R122 0
C105 0.01
R112 1M
R113 1M
C106 220p
R120 0
R114 39k
R121 0
R115 39k
IC101 M51593FP
LD
MD
PD1
PD2
Vss
F
E
VR
VC
NC
Vcc
LD ON
RF1
RFO
FE
FE BIAS
TE
E1
EO
NC
R111 560k
C108 0.1/25
R101 36k
R109 12k
R110 22k
VR102 22k
TR.BAL
R124 0
C109 0.1/25
CN102
ACTF-
ACTF+
ACTT-
ACTT+
GND
V+5
VC
LDON
FE
TE
NC
RF
(F)
(T)
MECHANISM BOARD ASSY (PWX1192)
S610 DSG1016 INSIDE SW
SPDL MTR PEA1235
CARRIAGE MTR PEA1246
M
CN610
INSD
SPDR
CADR
GND
(S)
(C)
173979-4
SERVO MECHA ASSY GM (AXA7028)
GM MECHA ASSY (AXA7026)

SIGNAL ROUTE

(F) :FOCUS SERVO LOOP LINE

(T) :TRACKING SERVO LOOP LINE

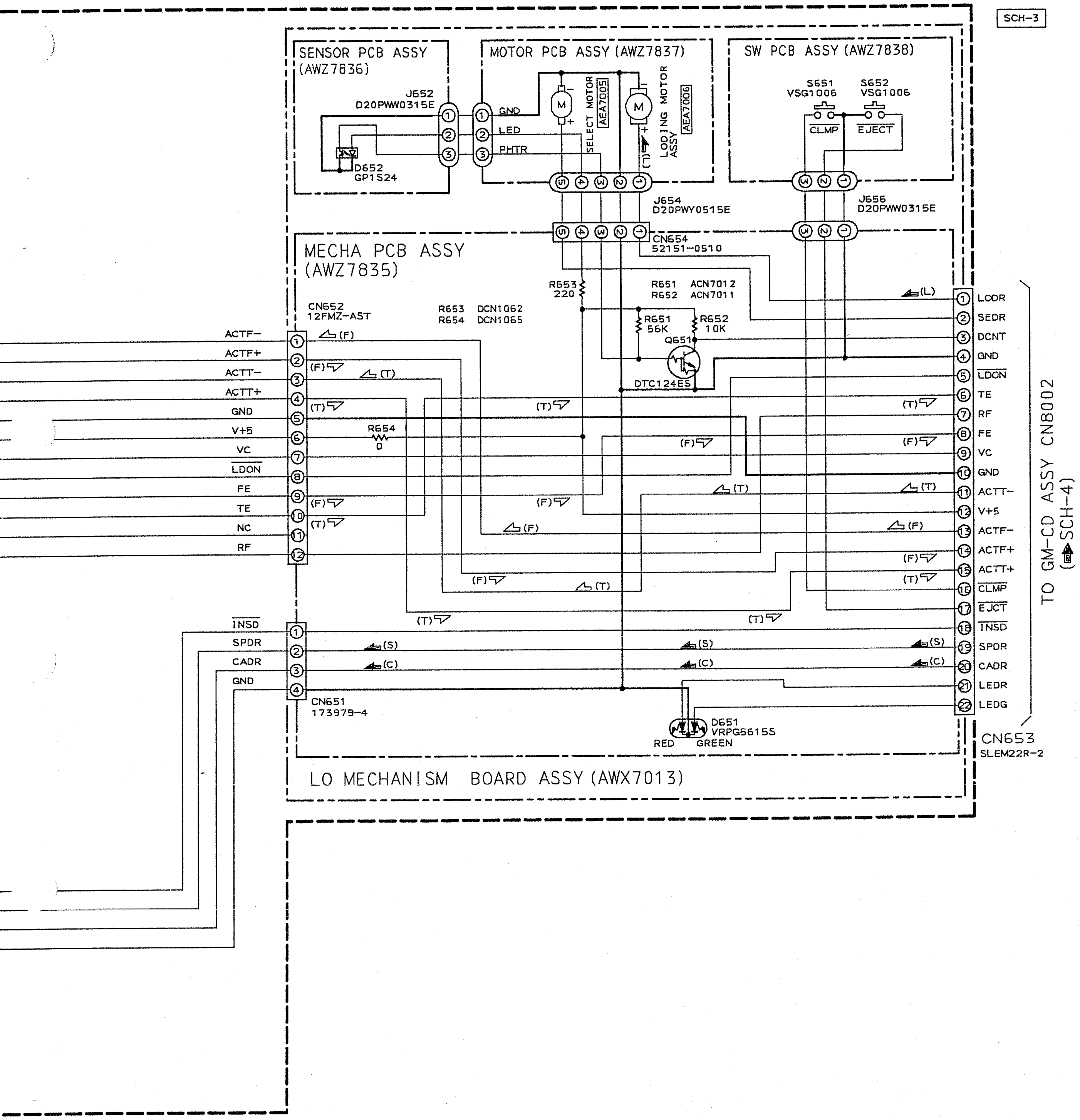
(L) :LOADING MOTOR ROUTE

(S) :SPINDLE MOTOR ROUTE

(C) :CARRIAGE MOTOR ROUTE

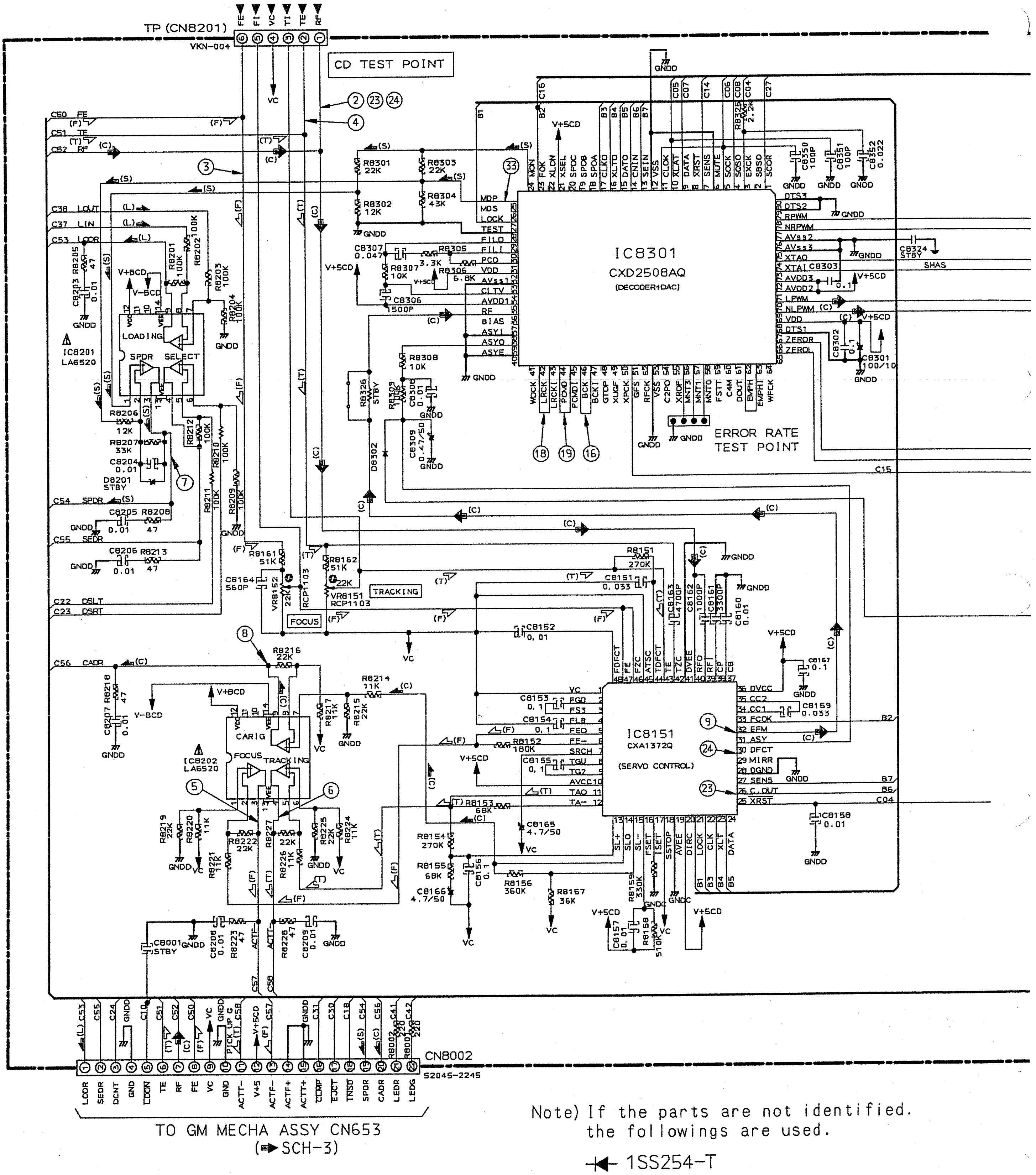
SCH-3

GM MECHA ASSY


SCH-3
SENSOR PCB ASSY (AWZ7836)
J652
D20PWW0315E
D652
GP1S24
MOTOR PCB ASSY (AWZ7837)
GND
LED
PHTR
SELECT MOTOR
AEA7005
LODING MOTOR ASSY
AEA7006
(L)
J654
D20PWY0515E
SW PCB ASSY (AWZ7838)
S651
VSG1006
S652
VSG1006
CLMP
EJECT
J656
D20PWW0315E
CN654
52151-0510
MECHA PCB ASSY (AWZ7835)
R653 220
R651 ACN7012
R652 ACN7011
R653 DCN1062
R654 DCN1065
R651 56K
R652 10K
Q651
DTC124ES
CN652
12FMZ-AST
ACTF-
ACTF+
ACTT-
ACTT+
GND
V+5
VC
LDON
FE
TE
NC
RF
R654
0
(F)
(T)
(L)
(S)
(C)
INSD
SPDR
CADR
GND
CN651
173979-4
D651
VRPG5615S
RED
GREEN
LODR
SEDR
DCNT
GND
LDON
TE
RF
FE
VC
GND
ACTT-
V+5
ACTF-
ACTF+
ACTT+
CLMP
EJCT
INSD
SPDR
CADR
LEDR
LEDG
CN653
SLEM22R-2
TO GM-CD ASSY CN8002
(SCH-4)
LO MECHANISM BOARD ASSY (AWX7013)

XR-J2500F

5.4 GM-CD ASSY AND HOME SW ASSY



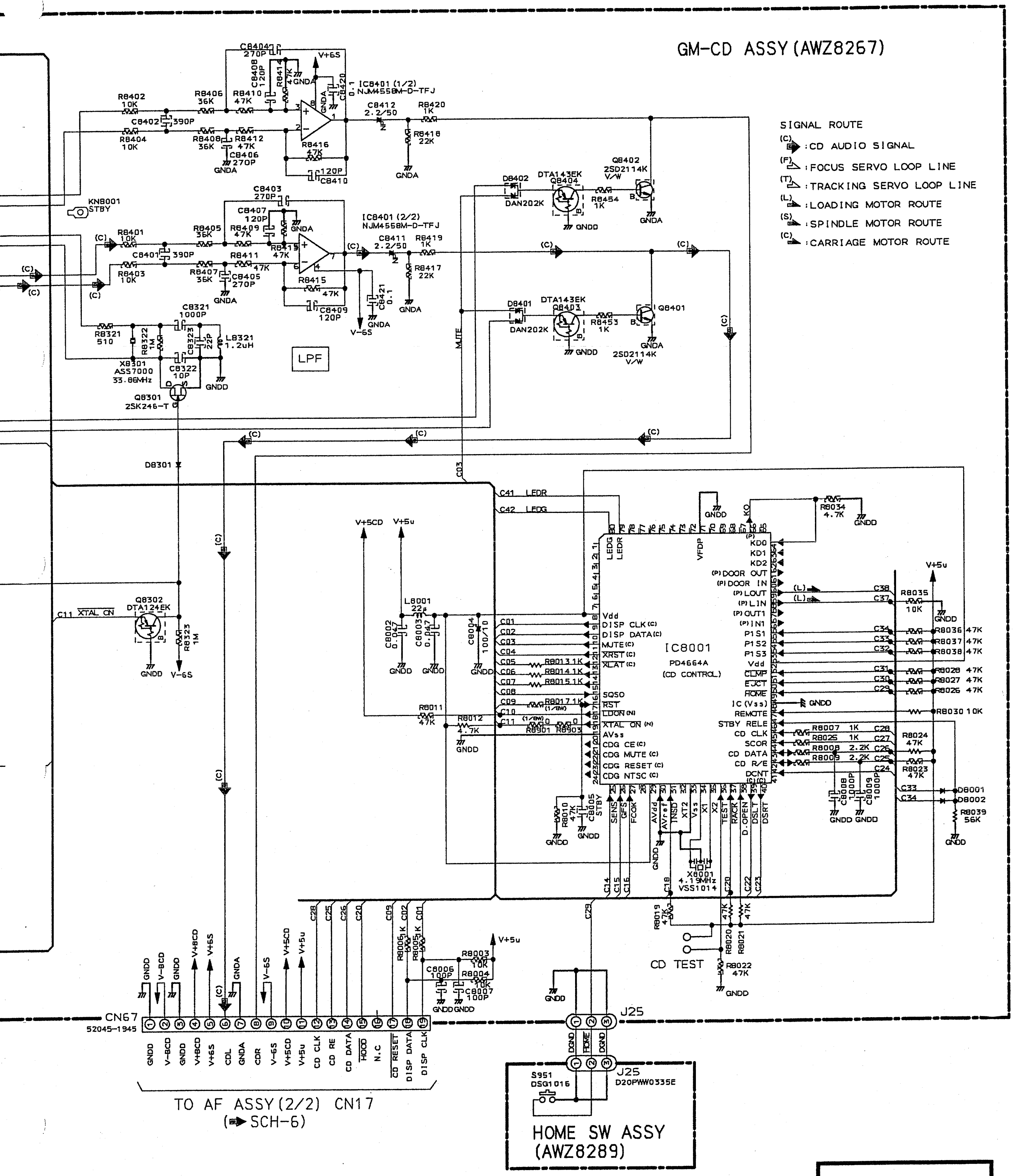
TP (CN8201)
VKN-004
FE
FI
VC
TI
TE
RF
CD TEST POINT
IC8301
CXD2508AQ
(DECODER+DAC)
IC8151
CXA1372Q
(SERVO CONTROL)
IC8201
LA6520
LOADING
SPDR
SELECT
IC8202
LA6520
CARIG
FOCUS
TRACKING
ERROR RATE TEST POINT
VR8152 RCP1103
VR8151 RCP1103
FOCUS
TRACKING
D8302
D8201 STBY
R8326 STBY
C8001 STBY
C8324 STBY
SHAS
V+5CD
V+BCD
V-BCD
VC
GNDD
CN8002
52045-2245
LODR
SEDR
DCNT
GND
LDON
TE
RF
FE
VC
GND
ACTT-
V+5
ACTF-
ACTF+
ACTT+
CLMP
EJCT
TRSD
SPDR
CADR
LEDR
LEDG
TO GM MECHA ASSY CN653
(➡SCH-3)

Note) If the parts are not identified.
the followings are used.

⊣◀⊢ 1SS254-T

SCH-4

GM-CD ASSY, HOME SW ASSY


GM-CD ASSY (AWZ8267)
SIGNAL ROUTE
(C) :CD AUDIO SIGNAL
(F) :FOCUS SERVO LOOP LINE
(T) :TRACKING SERVO LOOP LINE
(L) :LOADING MOTOR ROUTE
(S) :SPINDLE MOTOR ROUTE
(C) :CARRIAGE MOTOR ROUTE
IC8401 (1/2) NJM4558M-D-TFJ
IC8401 (2/2) NJM4558M-D-TFJ
LPF
Q8401 2SD2114K V/W
Q8402 2SD2114K V/W
Q8403 DTA143EK
Q8404 DTA143EK
D8401 DAN202K
D8402 DAN202K
KN8001 STBY
X8301 ASS7000 33.86MHz
Q8301 2SK246-T
D8301
Q8302 DTA124EK
L8001 22μ
IC8001 PD4664A (CD CONTROL)
X8001 4.19MHz VSS1014
D8001
D8002
CD TEST
CN67 52045-1945
J25
GNDD
V-8CD
GNDD
V+8CD
V+6S
CDL
GNDA
CDR
V-6S
V+5CD
V+5u
CD CLK
CD RE
CD DATA
HOOD
N.C
CD RESET
DISP DATA
DISP CLK
TO AF ASSY (2/2) CN17
(➡ SCH-6)
J25 D20PWW0335E
S951 DSG1016
HOME SW ASSY (AWZ8289)

GM-CD ASSY, HOME SW ASSY

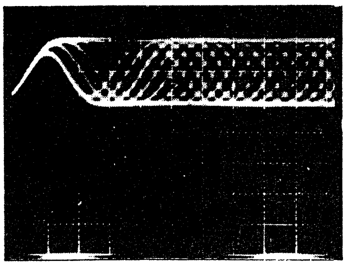
SCH-4

Waveforms (GM-CD Assy)

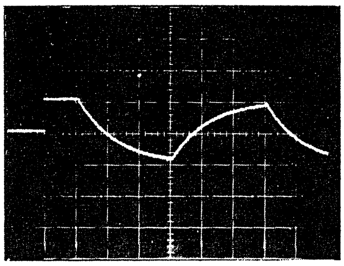
Note: The encircled numbers denote measuring point in the schematic disgram.

*2 FOCUS–IN: Press the key without loading a disc.

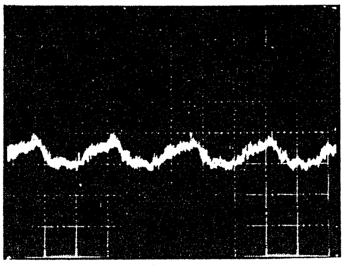
② TP(CN8201)-Pin1: PLAY MODE (RF)
500mV/div 500nsec/div



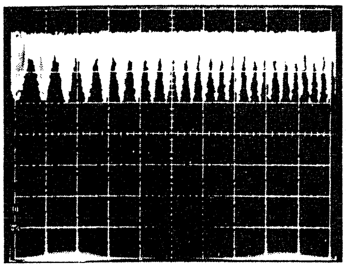
⑤ IC8202-Pin3: FOCUS-IN (*2) MODE (FODR)
1V/div 200msec/div



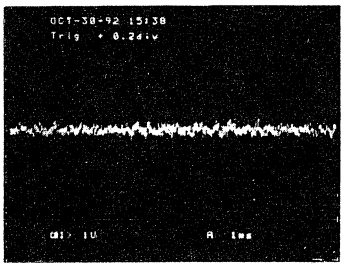
⑦ IC8201-Pin3: PLAY MODE (SPDR)
1V/div 50msec/div



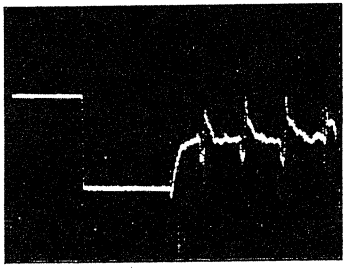
② TP(CN8201)-Pin1: TRACK SEARCH MODE (RF)
500mV/div 200μsec/div



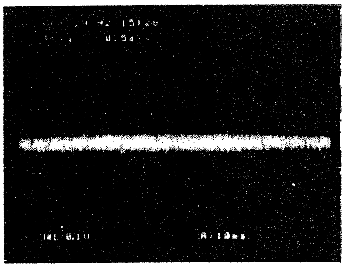
⑤ IC8202-Pin3: PLAY MODE (FODR)
1V/div 1msec/div



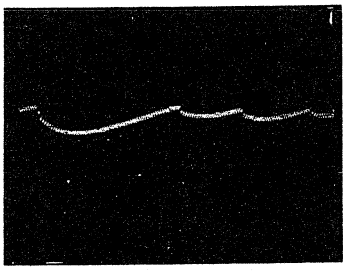
⑦ IC8201-Pin3: TRACK SEARCH MODE (SPDR)
2V/div 50msec/div



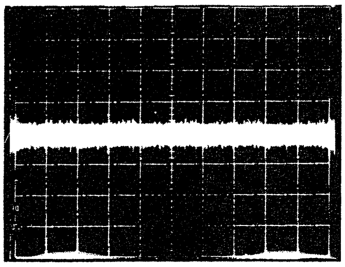
③ TP(CN8201)-Pin6: PLAY MODE (FOER)
100mV/div 10msec/div



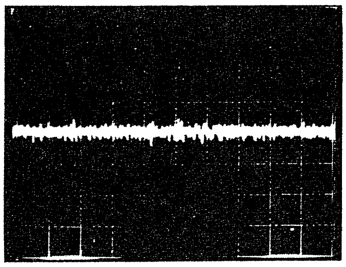
⑧ IC8202-Pin9: PLAY MODE (CADR)
0.2V/div 2sec/div



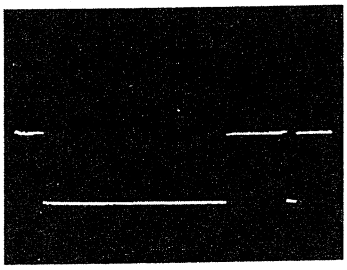
④ TP(CN8201)-Pin2: PLAY MODE (TRER)
1V/div 1msec/div



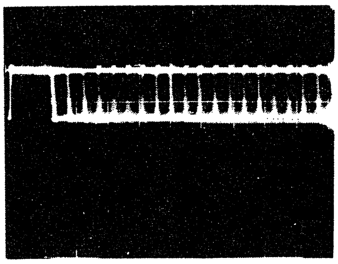
⑥ IC8202-Pin4: PLAY MODE (TRDR)
500mV/div 1msec/div



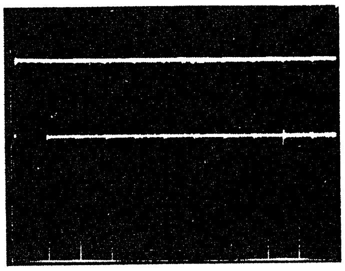
⑧ IC8202-Pin9: TRACK SEARCH MODE (CADR)
2V/div 200msec/div



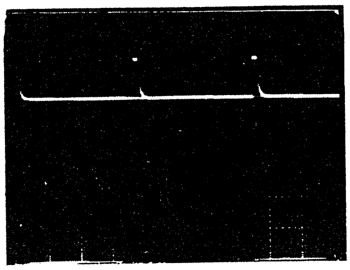
⑨ IC8151-Pin32: PLAY MODE (EFM)
2V/div 500nsec/div



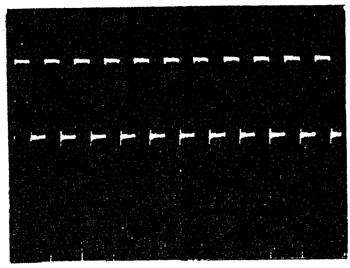
⑲ IC8301-Pin44: PLAY MODE (1kHz)
(PCMD)
2V/div 500nsec/div



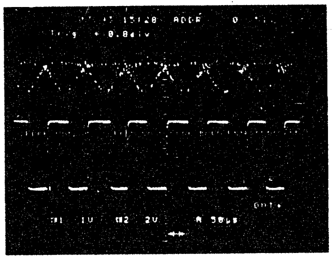
㉝ IC8301-Pin25: PLAY MODE (MDP)
2V/div 2µsec/div



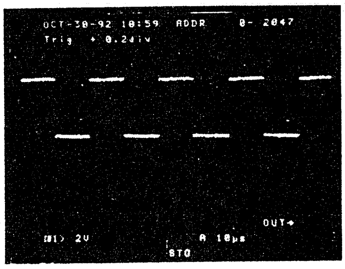
⑯ IC8301-Pin46: PLAY MODE (1kHz)
(BCK)
2V/div 500nsec/div



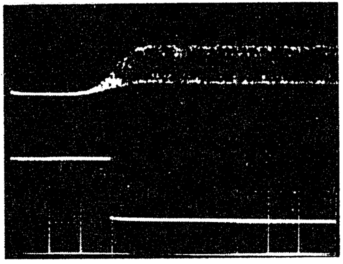
㉓ : TRACK SEARCH MODE
Upper: TP(CN8201)-Pin1 (RF) 1V/div
Lower: IC8151-Pin26 (C. OUT)
2V/div 50µsec/div



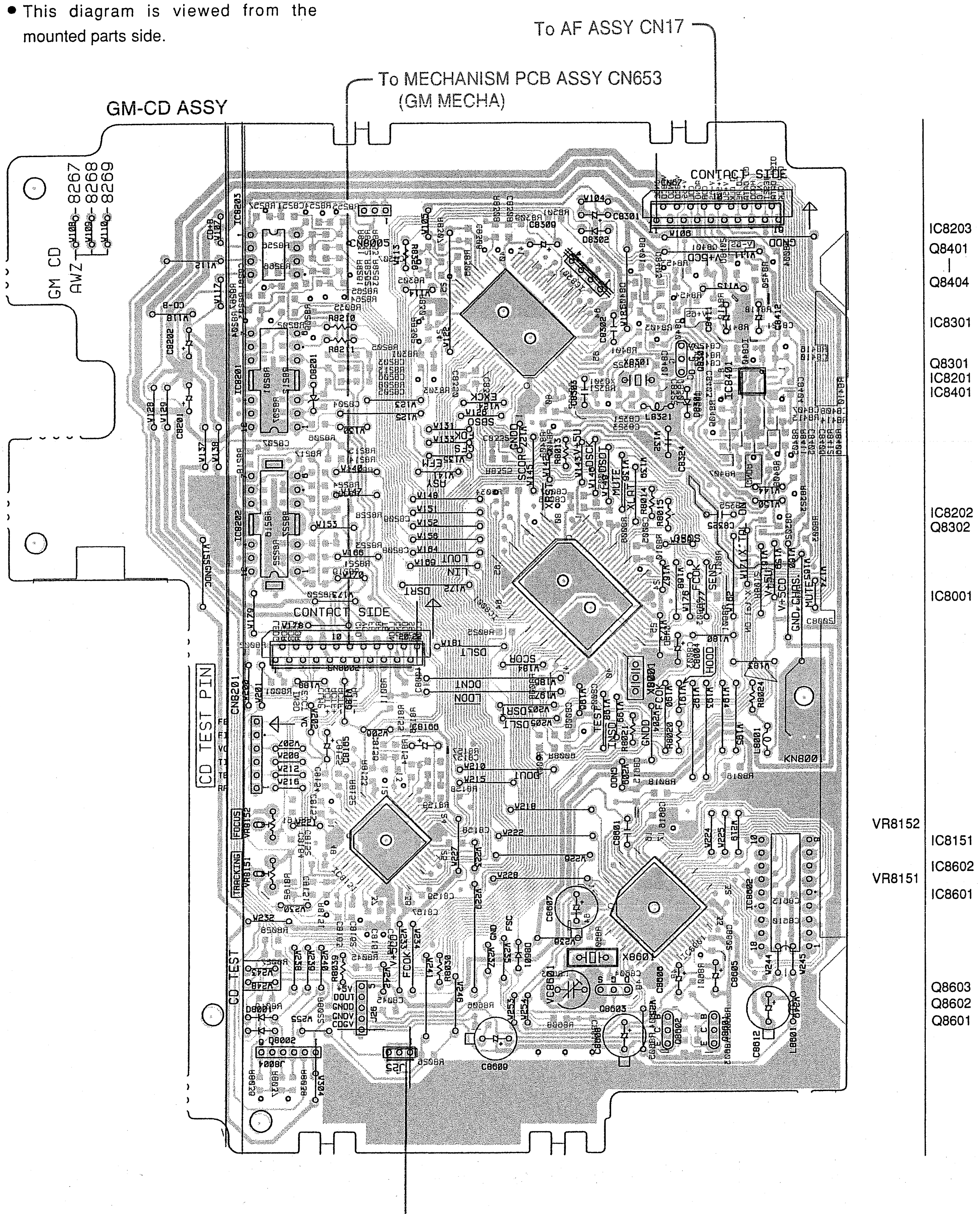
⑱ IC8301-Pin42: PLAY MODE (1kHz)
(LRCK)
2V/div 10µsec/div

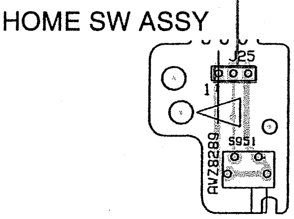


㉔ : PLAY MODE
Upper: TP(CN8201)-Pin1 (RF) 1V/div
Lower: IC8151-Pin30 (DFCT)
5V/div 200µsec/div



- This diagram is viewed from the mounted parts side.

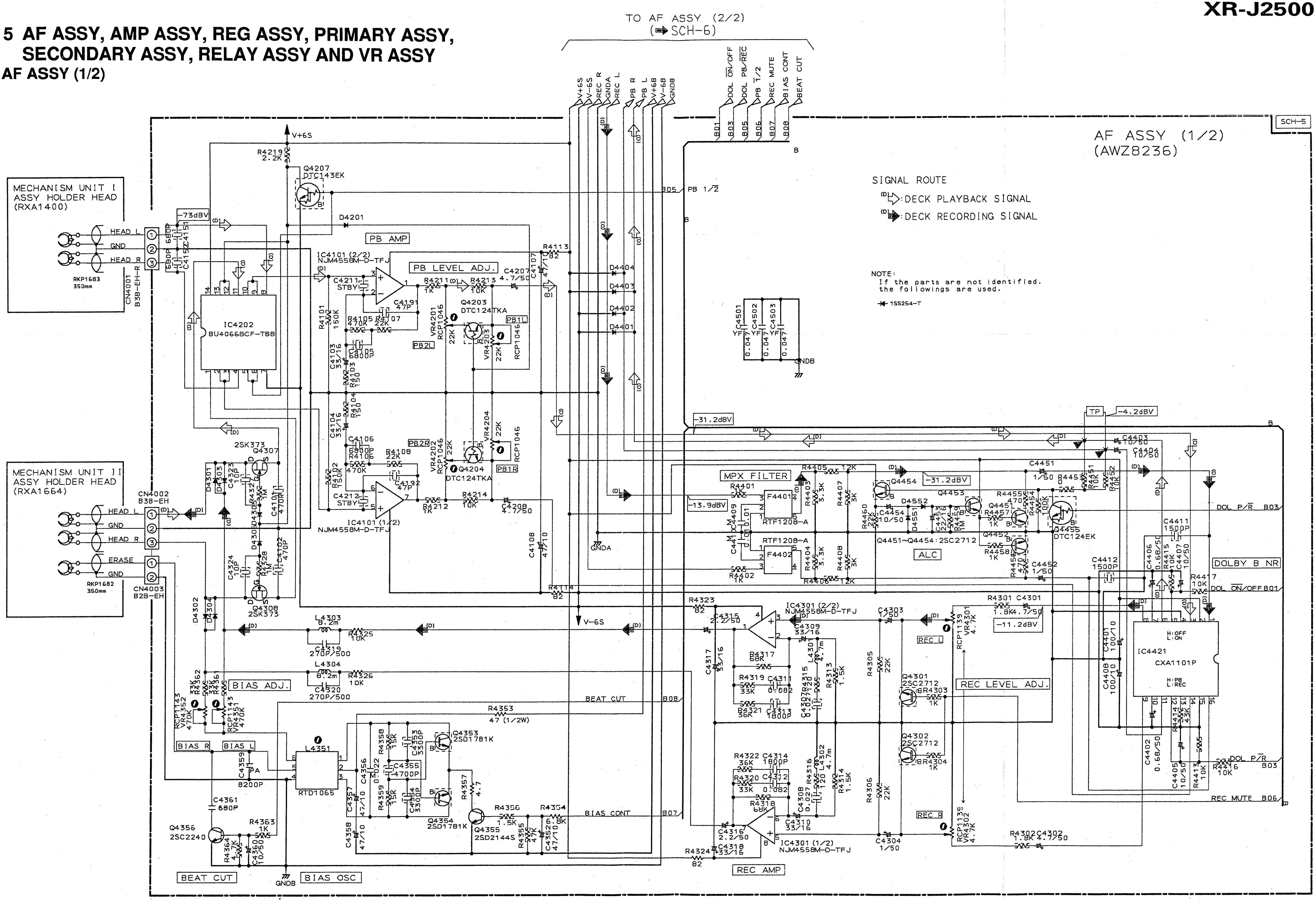

To AF ASSY CN17
To MECHANISM PCB ASSY CN653
(GM MECHA)
GM-CD ASSY
GM CD
AWZ-8267
-8268
-8269
CONTACT SIDE
CONTACT SIDE
CD TEST PIN
CD TEST
FOCUS
VR8152
TRACKING
VR8151
CN8201
CN8005
CN8001
IC8203
IC8201
IC8202
IC8401
IC8001
IC8151
IC8602
IC8601
KN8001
X8601
X8001
J25
J26
J8001
DSRT
DSLT
DCNT
LOUT
LIN
SCOR
SBSO
EXCK
GNDD
MUTE
XLAT
FCOK
SENS
HOOD
FSC
GND
+5V
DOUT
CDGY
IC8203
Q8401
|
Q8404
IC8301
Q8301
IC8201
IC8401
IC8202
Q8302
IC8001
VR8152
VR8151
IC8151
IC8602
IC8601
Q8603
Q8602
Q8601


HOME SW ASSY
J25
1
S951
AWZ8289

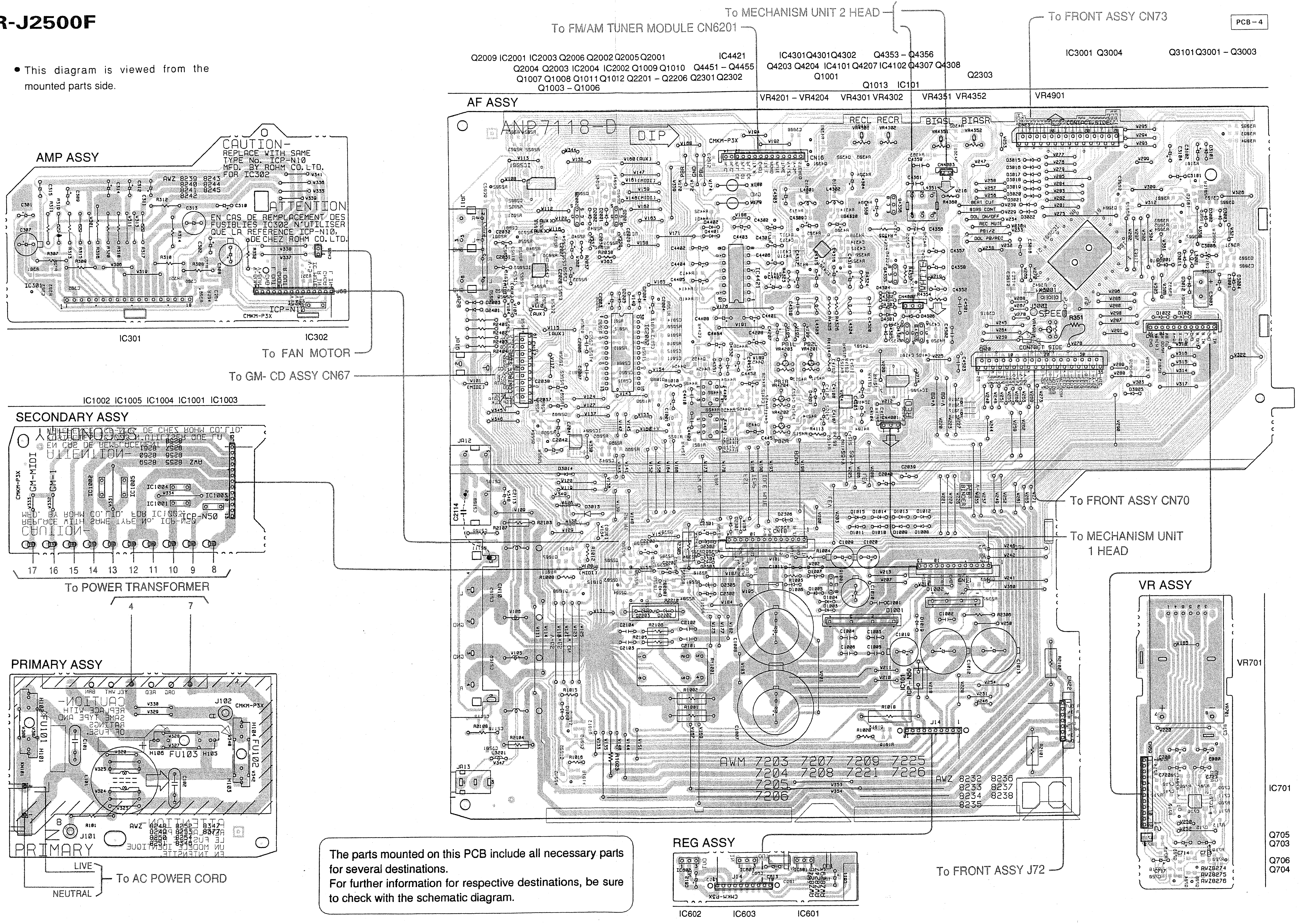
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

5.5 AF ASSY, AMP ASSY, REG ASSY, PRIMARY ASSY, SECONDARY ASSY, RELAY ASSY AND VR ASSY

- **AF ASSY (1/2)**

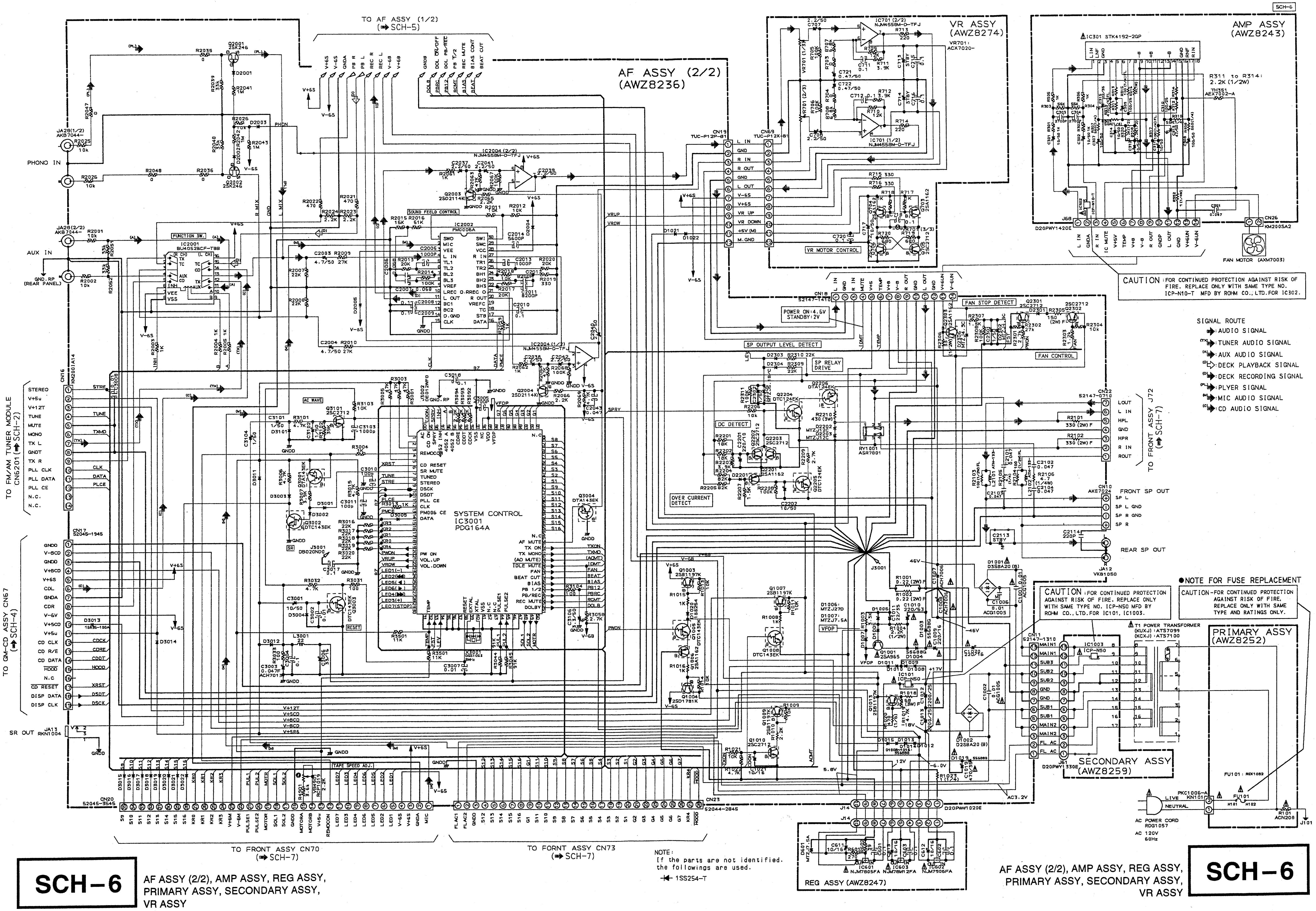

TO AF ASSY (2/2)
(➡ SCH-6)
V+6S
V-6S
REC R
GNDA
REC L
PB R
PB L
V+6B
V-6B
GNDB
DOL ON/OFF
DOL PB/REC
PB 1/2
REC MUTE
BIAS CONT
BEAT CUT
B01
B03
B05
B06
B07
B08
SCH-5
AF ASSY (1/2)
(AWZ8236)
SIGNAL ROUTE
(D): DECK PLAYBACK SIGNAL
(D): DECK RECORDING SIGNAL
NOTE:
If the parts are not identified, the followings are used.
1SS254-T
MECHANISM UNIT I ASSY HOLDER HEAD (RXA1400)
MECHANISM UNIT II ASSY HOLDER HEAD (RXA1664)
HEAD L
GND
HEAD R
ERASE
RKP1683 350mm
RKP1682 350mm
CN4001 B3B-EH-R
CN4002 B3B-EH
CN4003 B2B-EH
IC4202 BU4066BCF-TBB
IC4101 (2/2) NJM4558M-D-TFJ
IC4101 (1/2) NJM4558M-D-TFJ
PB AMP
PB LEVEL ADJ.
Q4207 DTC143EK
Q4203 DTC124TKA
Q4204 DTC124TKA
VR4201 RCP1046 22K
VR4202 RCP1046 22K
VR4203 22K RCP1046
VR4204 22K RCP1046
PB1L
PB2L
PB1R
PB2R
2SK373 Q4307
Q4308 2SK373
-73dBV
-31.2dBV
-13.9dBV
-4.2dBV
-11.2dBV
TP
GNDA
GNDB
MPX FILTER
F4401
F4402
RTF1208-A
ALC
Q4454
Q4453
Q4451
Q4452
Q4455 DTC124EK
Q4451~Q4454: 2SC2712
DOLBY B NR
IC4421 CXA1101P
H: OFF L: ON
H: PB L: REC
DOL P/R B03
DOL ON/OFF B01
DOL P/R B03
REC MUTE B06
IC4301 (2/2) NJM4558M-D-TFJ
IC4301 (1/2) NJM4558M-D-TFJ
REC AMP
REC LEVEL ADJ.
REC L
REC R
VR4301 RCP1139 4.7K
VR4302 RCP1139 4.7K
Q4301 2SC2712
Q4302 2SC2712
L4303 8.2m
L4304 8.2m
BIAS ADJ.
VR4352 RCP1143 470K
VR4351 RCP1143 470K
BIAS R
BIAS L
L4351 RTD1065
Q4353 2SD1781K
Q4354 2SD1781K
Q4355 2SD2144S
Q4356 2SC2240
BEAT CUT B08
BIAS CONT B07
R4353 47 (1/2W)
BEAT CUT
BIAS OSC

- This diagram is viewed from the mounted parts side.


To MECHANISM UNIT 2 HEAD
To FM/AM TUNER MODULE CN6201
To FRONT ASSY CN73
Q2009 IC2001 IC2003 Q2006 Q2002 Q2005 Q2001
Q2004 Q2003 IC2004 IC2002 Q1009 Q1010
Q1007 Q1008 Q1011 Q1012 Q2201 – Q2206 Q2301 Q2302
Q1003 – Q1006
IC4421
Q4451 – Q4455
IC4301 Q4301 Q4302
Q4203 Q4204 IC4101 Q4207 IC4102
Q1001
Q4353 – Q4356
Q4307 Q4308
Q2303
Q1013 IC101
IC3001 Q3004
Q3101 Q3001 – Q3003
VR4201 – VR4204 VR4301 VR4302
VR4351 VR4352
VR4901
AF ASSY
ANP7118-D
DIP
AMP ASSY
CAUTION-
REPLACE WITH SAME
TYPE No. ICP-N10
MFD. BY ROHM CO. LTD.
FOR IC302
ATTENTION
EN CAS DE REMPLACEMENT DES
FUSIBLES IC302 N'UTILISER
QUE LA REFERENCE ICP-N10,
DE CHEZ ROHM CO. LTD.
AWZ 8239 8243
8240 8244
8241 8245
8242
IC301
IC302
To FAN MOTOR
To GM- CD ASSY CN67
IC1002 IC1005 IC1004 IC1001 IC1003
SECONDARY ASSY
CAUTION-
REPLACE WITH SAME TYPE No. ICP-N50
MFD. BY ROHM CO. LTD. FOR IC1003
17 16 15 14 13 12 11 10 9 8
To POWER TRANSFORMER
4 7
PRIMARY ASSY
FU101
FU102
FU103
J101
J102
PRIMARY
LIVE
NEUTRAL
To AC POWER CORD
AWM 7203 7207 7209 7225
7204 7208 7221 7226
7205
7206
AWZ 8232 8236
8233 8237
8234 8238
8235
To FRONT ASSY CN70
To MECHANISM UNIT
1 HEAD
VR ASSY
VR701
IC701
Q705
Q703
Q706
Q704
REG ASSY
IC602 IC603 IC601
To FRONT ASSY J72

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

● AF ASSY (2/2), AMP ASSY, REG ASSY, PRIMARY ASSY, SECONDARY ASSY AND VR ASSY


SCH-6
AF ASSY (2/2) (AWZ8236)
VR ASSY (AWZ8274)
AMP ASSY (AWZ8243)
TO AF ASSY (1/2) (➡ SCH-5)
SYSTEM CONTROL IC3001 PDG164A
TO FM/AM TUNER MODULE CN6201 (➡ SCH-2)
TO GM-CD ASSY CN67 (➡ SCH-4)
TO FRONT ASSY J72 (➡ SCH-7)
TO FRONT ASSY CN70 (➡ SCH-7)
TO FORNT ASSY CN73 (➡ SCH-7)
PHONO IN
AUX IN
SR OUT
FRONT SP OUT
REAR SP OUT
FAN MOTOR (AXM7003)
PRIMARY ASSY (AWZ8252)
SECONDARY ASSY (AWZ8259)
REG ASSY (AWZ8247)
T1 POWER TRANSFORMER (KUXJ) :ATS7099 (KCXJ) :ATS7100
AC POWER CORD RDG1057
AC 120V 60Hz

CAUTION :FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N10-T MFD BY ROHM CO.,LTD.FOR IC302.

SIGNAL ROUTE
- ➡:AUDIO SIGNAL
- (TX)➡:TUNER AUDIO SIGNAL
- (A)➡:AUX AUDIO SIGNAL
- (D)▷:DECK PLAYBACK SIGNAL
- (R)➡:DECK RECORDING SIGNAL
- (PL)➡:PLYER SIGNAL
- (MI)➡:MIC AUDIO SIGNAL
- (C)➡:CD AUDIO SIGNAL

CAUTION ;FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N50 MFD BY ROHM CO.,LTD.FOR IC101, IC1003.

●NOTE FOR FUSE REPLACEMENT

CAUTION-FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

NOTE:
[f the parts are not identified. the followings are used.

⊣◀⊢ 1SS254-T

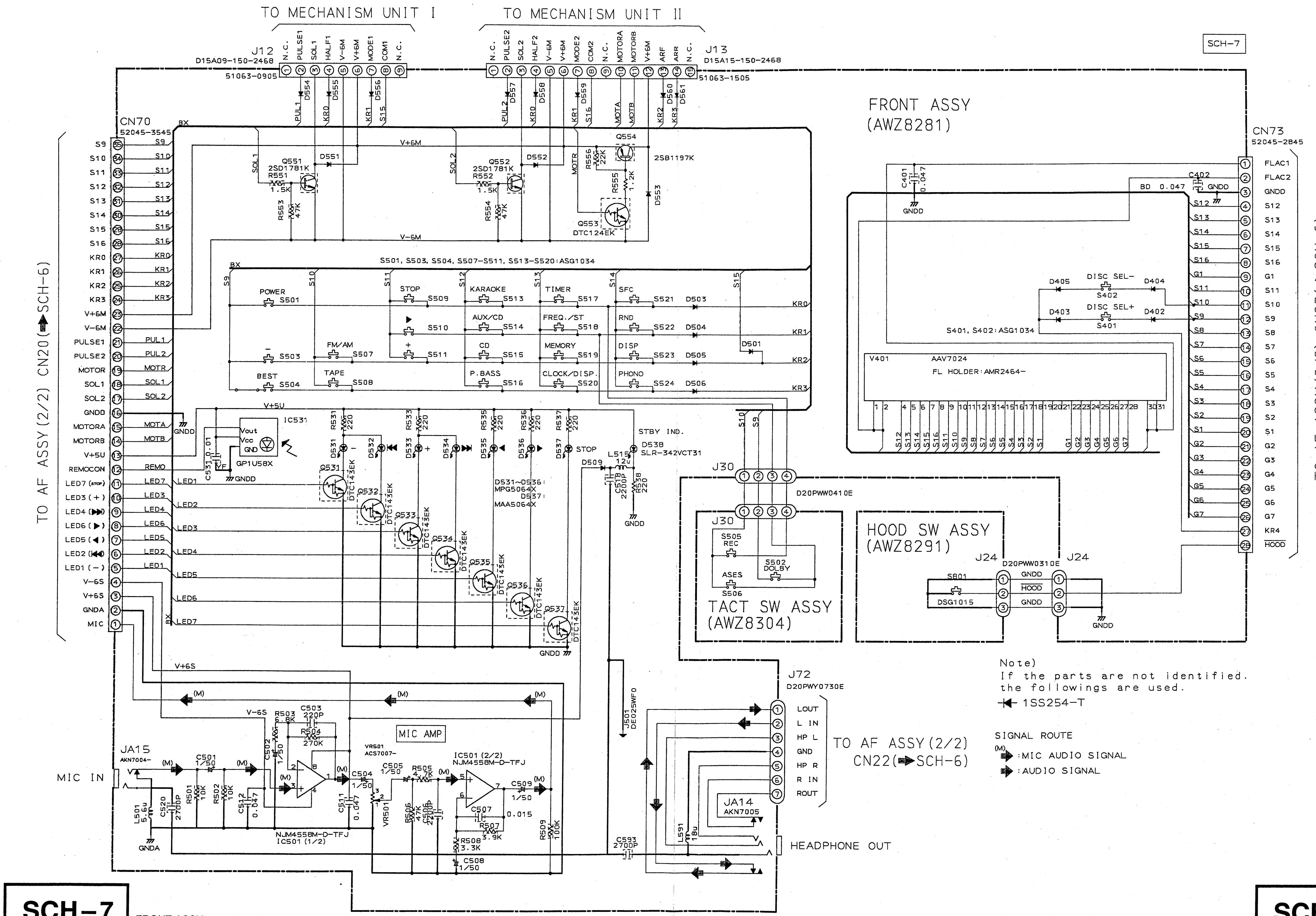
SCH-6

AF ASSY (2/2), AMP ASSY, REG ASSY,
PRIMARY ASSY, SECONDARY ASSY,
VR ASSY

AF ASSY (2/2), AMP ASSY, REG ASSY,
PRIMARY ASSY, SECONDARY ASSY,
VR ASSY

SCH-6

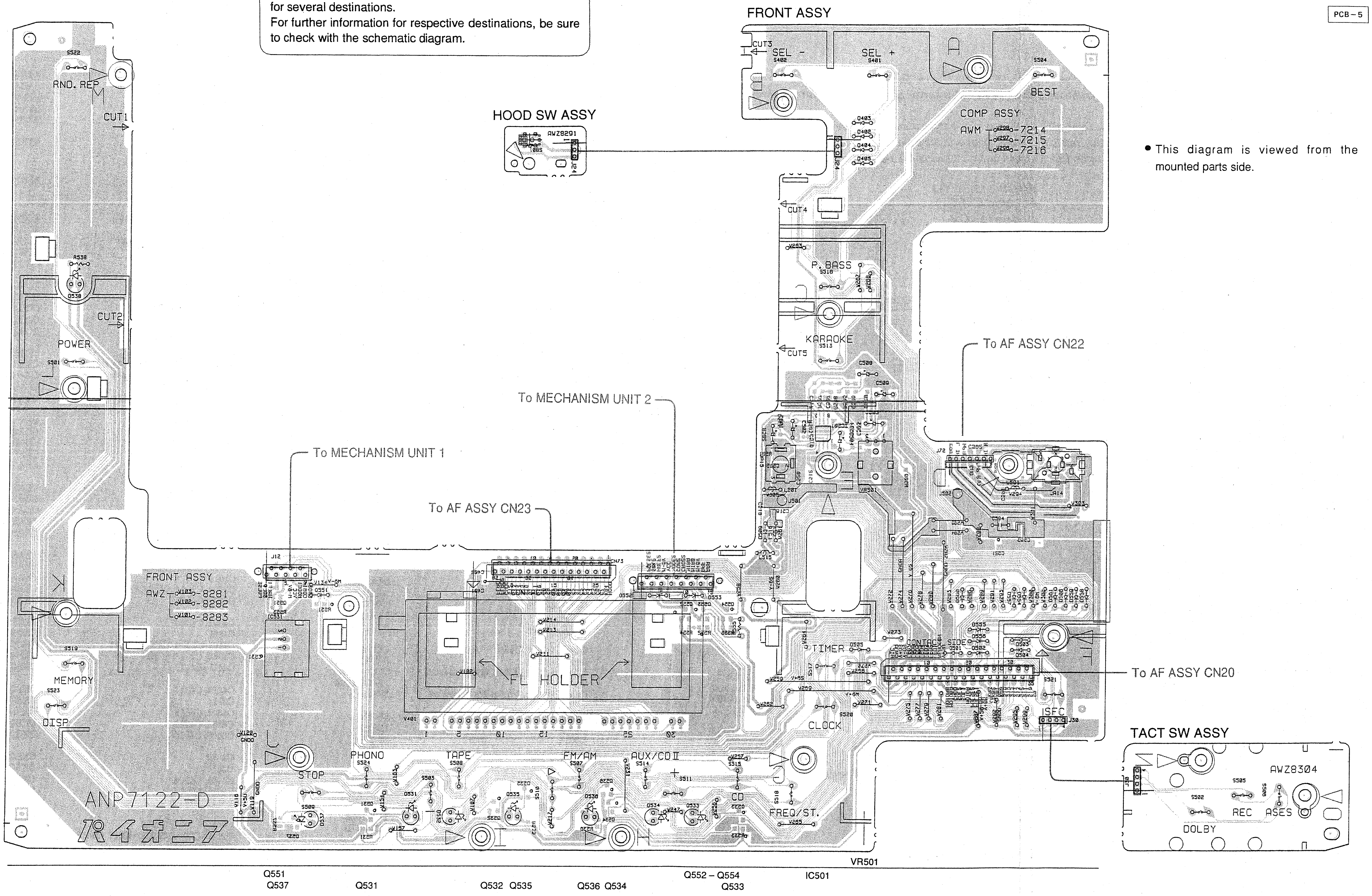
5.6 FRONT ASSY, TACT SW ASSY AND HOOD SW ASSY


TO MECHANISM UNIT I
TO MECHANISM UNIT II
J12 D15A09-150-2468 51063-0905
N.C. PULSE1 SOL1 HALF1 V-6M V+6M MODE1 COM1 N.C.
J13 D15A15-150-2468 51063-1505
N.C. PULSE2 SOL2 HALF2 V-6M V+6M MODE2 COM2 N.C. MOTORA MOTORB V+6M ARF ARR N.C.
SCH-7
FRONT ASSY (AWZ8281)
CN70 52045-3545
S9 S10 S11 S12 S13 S14 S15 S16 KR0 KR1 KR2 KR3 V+6M V-6M PULSE1 PULSE2 MOTOR SOL1 SOL2 GNDD MOTORA MOTORB V+5U REMOCON LED7 (STOP) LED3 (+) LED4 (▶▶|) LED6 (▶) LED5 (◀) LED2 (|◀◀) LED1 (−) V-6S V+6S GNDA MIC
TO AF ASSY (2/2) CN20 (➡SCH-6)
Q551 2SD1781K R551 1.5K R553 47K D551
Q552 2SD1781K R552 1.5K R554 47K D552
Q554 2SB1197K R556 22K R555 1.2K Q553 DTC124EK D553
D554 D555 D556 D557 D558 D559 D560 D561
S501, S503, S504, S507–S511, S513–S520 : ASG1034
POWER S501 STOP S509 KARAOKE S513 TIMER S517 SFC S521 D503
▶ S510 AUX/CD S514 FREQ./ST S518 RND S522 D504
− S503 FM/AM S507 + S511 CD S515 MEMORY S519 DISP S523 D505 D501
BEST S504 TAPE S508 P.BASS S516 CLOCK/DISP. S520 PHONO S524 D506
IC531 GP1U58X Vout Vcc GND C531 0.01 F
R531 220 R533 220 R535 220 R536 220 R537 220
D531 D532 D533 D534 D535 D536 D537 STOP
Q531–Q537 DTC143EK
D531~D536 : MPG5064X D537 : MAA5064X
STBY IND. D538 SLR-342VCT31 D509 L515 12μ C518 2200P R538 220
CN73 52045-2845
FLAC1 FLAC2 GNDD S12 S13 S14 S15 S16 G1 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 G2 G3 G4 G5 G6 G7 KR4 HOOD
TO AF ASSY (2/2) CN23 (➡SCH-6)
C401 0.047 C402 BD 0.047
D405 DISC SEL− S402 D404
D403 DISC SEL+ S401 D402
S401, S402 : ASG1034
V401 AAV7024 FL HOLDER : AMR2464−
J30 D20PWW0410E
S505 REC S502 DOLBY ASES S506
TACT SW ASSY (AWZ8304)
HOOD SW ASSY (AWZ8291)
J24 D20PWW0310E S801 DSG1015 GNDD HOOD GNDD
V+6S V-6S
JA15 AKN7004− MIC IN L501 5.6μ C520 2700P C501 1/50 R501 10K R502 10K C512 0.047
R503 6.8K C503 220P R504 270K C502 1/50
IC501 (1/2) NJM4558M-D-TFJ MIC AMP
VR501 ACS7007− C504 1/50 C511 0.047 C505 1/50 R505 4.7K R506 47K C506 2700P
IC501 (2/2) NJM4558M-D-TFJ C507 0.015 R507 3.9K R508 3.3K C508 1/50 C509 1/50 R509 100K
J501 DE025WF0 C593 2700P L591 18μ
J72 D20PWY0730E LOUT L IN HP L GND HP R R IN ROUT
TO AF ASSY (2/2) CN22 (➡SCH-6)
JA14 AKN7005 HEADPHONE OUT
(M)

Note)
If the parts are not identified, the followings are used.
◀ 1SS254-T

SIGNAL ROUTE
(M)➡ : MIC AUDIO SIGNAL
➡ : AUDIO SIGNAL

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.


FRONT ASSY
HOOD SW ASSY
AWZ8291
TACT SW ASSY
AWZ8304
To AF ASSY CN22
To AF ASSY CN20
To AF ASSY CN23
To MECHANISM UNIT 1
To MECHANISM UNIT 2
FRONT ASSY
AWZ-8281
-8282
-8283
COMP ASSY
AWM-7214
-7215
-7216
SEL -
SEL +
BEST
RND. REP
CUT1
CUT2
CUT3
CUT4
CUT5
POWER
P. BASS
KARAOKE
MEMORY
DISP
STOP
PHONO
TAPE
FM/AM
AUX/CD II
CD
FREQ/ST.
CLOCK
TIMER
ISFC
REC
ASES
DOLBY
FL HOLDER
ANP7122-D
VR501
Q551
Q537
Q531
Q532
Q535
Q536
Q534
Q552 – Q554
Q533
IC501

- This diagram is viewed from the mounted parts side.

6. PCB PARTS LIST

NOTES :

- *Parts marked by* " NSP " *are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by* " ◉ " *are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*
560 Ω → $56 \times 10^{1} = 561$ …………………………… *RD1/4PU* $\boxed{5}\boxed{6}\boxed{1}$ *J*
47k Ω → $47 \times 10^{3} = 473$ …………………………… *RD1/4PU* $\boxed{4}\boxed{7}\boxed{3}$ *J*
0.5 Ω → *0R5* …………………………………………… *RN2H* $\boxed{0}\boxed{R}\boxed{5}$ *K*
1 Ω → *1R0* ……………………………………………… *RS1P* $\boxed{1}\boxed{R}\boxed{0}$ *K*

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*
5.62k Ω → $562 \times 10^{1} = 5621$ ……………………… *RN1/4PC* $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ *F*

LIST OF PCB ASSEMBLIES

Mark	No.	Description	Parts No.
	FM/AM TUNER MODULE		AXQ3112
NSP	MAIN ASSY		AWM7207
	├AF ASSY		AWZ8236
	├AMP ASSY		AWZ8243
	├REG ASSY		AWZ8247
NSP	├PRIMARY ASSY		AWZ8252
NSP	└SECONDARY ASSY		AWZ8259
NSP	COMP. ASSY		AWM7214
	├GM-CD ASSY		AWZ8267
	├VR ASSY		AWZ8274
	├FRONT ASSY		AWZ8281
NSP	├HOME SW ASSY		AWZ8289
NSP	├HOOD SW ASSY		AWZ8291
NSP	└TACT SW ASSY		AWZ8304
NSP	GM MECHA ASSY		AXA7026
NSP	├LO MECHANISM BOARD ASSY		AWX7013
NSP	│ ├MECHA PCB ASSY		AWZ7835
NSP	│ ├SENSOR PCB ASSY		AWZ7836
NSP	│ ├MOTOR PCB ASSY		AWZ7837
NSP	│ └SW PCB ASSY		AWZ7838
NSP	└SERVO MECHANISM ASSY GM		AXA7028
NSP	└MECHANISM BOARD ASSY		PWX1192

FM/AM TUNER MODULE

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6217		XDC124EK
	D6101, D6102		1T33

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L6104		ATC1003
	L6101		ATC1020
	L6102		ATC1021
	T6101		ATE–063
	L6207 (10.7MHz)		ATE1013
	F6203, F6204		ATF–119
	F6101		ATF–155
	F6202 (450kHz)		ATF1155
	L6103 (2.2μH)		ATH1043
	L6202, L6203, L6208		LCTA2R2J3225

CAPACITORS

Mark	No.	Description	Parts No.
	C6202, C6234, C6236 (1μF/16V)		ACG1051
	C6107		CCSCH010C50
	C6229		CCSCH821J50
	C6110		CCSQCH020C50
	C6101		CCSQCH050C50
	C6108, C6203, C6268		CCSQCH101J50
	C6111, C6116, C6208, C6221, C6222		CCSQCH150J50
	C6115		CCSQCH330J50
	C6114		CCSQRH080D50
	C6113		CCSQRH180J50
	C6105		CCSQTH150J50
	C6261		CEAS010M50
	C6224, C6246, C6262		CEAS100M50
	C6227		CEAS101M10
	C6216, C6217		CEAS330M16
	C6231, C6233		CEAS3R3M50
	C6219		CEAS470M10
	C6243–C6245		CEAS470M16
	C6238		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6103, C6106, C6112, C6204		CKSQYB102K50
	C6102, C6109, C6117, C6210, C6264		CKSQYB103K50
	C6213		CKSQYB223K50
	C6230		CKSQYB333K50
	C6228, C6252		CKSQYB472K50
	C6209, C6237, C6265, C6267		CKSQYB473K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242, C6255		CKSQYF223Z50
	C6235		CKSQYF224Z25
	C6225, C6241, C6266		CKSQYF473Z50
	C6232		CKSYB333K50
	C6251		CKSYB472K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	R6299, R6300		RD1/8PM102J
	R6113, R6116, R6118, R6268–R6271		RS1/8S000J
	R6275, R6276, R6278, R6283, R6284		RS1/8S000J
	R6290, R6293, R6294, R6297		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211		RS1/8S103J
	R6237		RS1/8S182J
	R6209		RS1/8S221J
	R6239		RS1/8S332J
	R6101		RS1/8S470J
	VR6201 (10kΩ)	ACP1056	
	VR6202		VRTB6VS223
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	BN6201	TERMINAL 4–P	AKA1016
	X6203 (7.200MHz)	CRYSTAL RESONATOR	ASS1042
	X6201 (456kHz)	CRYSTAL RESONATOR	ASS1066
	X6202 (450kHz)	CERAMIC RESONATOR	ATF1027
	AM RF	TUNING BLOCK	AXX1025
	CN6201	14P SOCKET	KP200IA14L

AF ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC2001		BU4052BCF
	IC4202		BU4066BCF
	IC4421		CXA1101P
⚠	IC101		ICP–N50
	IC2004, IC4101, IC4301		NJM4558M–D
	IC3001		PDG164A
	IC2002		PM0006A
	Q1006, Q2201, Q2303		2SA1162
⚠	Q1001		2SA965
	Q1003, Q1007, Q1009, Q1013		2SB1197K
	Q4356		2SC2240
	Q1010, Q2202, Q2203, Q2301, Q2302		2SC2712
	Q3101, Q4301, Q4302, Q4451–Q4454		2SC2712
	Q1004, Q4353, Q4354		2SD1781K
	Q2003, Q2004		2SD2114K
	Q4355		2SD2144S
	Q2001, Q2002		2SK246
	Q4307, Q4308		2SK373
	Q2206		DTA124EK
	Q3001, Q3004		DTA143EK
	Q2204, Q2205, Q4455		DTC124EK
	Q4203, Q4204		DTC124TKA
	Q1005, Q1008, Q3002, Q3003, Q4207		DTC143EK
	D3013		1SR35–100A
	D1005, D1020–D1022, D2001–D2005		1SS254
	D2201, D2301, D2303, D2304		1SS254
	D3001–D3005, D3011, D3012		1SS254
	D3014–D3022, D3101, D4201		1SS254
	D4301–D4306, D4401–D4404		1SS254
	D4551, D4552		1SS254
⚠	D1002		D2SBA20 (B)
⚠	D1001		D3SBA20 (B)
	D2202, D2203		MTZJ12C
	D2306		MTZJ27B
	D1006		MTZJ27D
	D2302, D2305		MTZJ4.3C
	D1007		MTZJ7.5A
⚠	D1003, D1004, D1019		S5688G
	D1008–D1015		S5688G

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L2101, L2102 (1μH)		ATH–133
	L3001		LAU220J
	L4301, L4302		LTA472J
	L4303, L4304		LTA822J
	L4351 (4.05μH)		RTD1065
	F4401, F4402		RTF1208

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	RY1001		ASR7001

CAPACITORS

Mark	No.	Description	Parts No.
⚠	C1001, C1002 (0.01μF/150V)		ACG1005
	C1006 (0.01μF/150V)		ACG1005
⚠	C1007, C1008 (3300μF/56V)		ACH7006
	C3003		ACH7013
	C4319, C4320		CCCSL271K500
	C4323, C4324		CCSQCH100D50
	C3010, C3011		CCSQCH101J50
	C4101, C4102		CCSQCH471J50
	C4151, C4152		CCSQCH681J50
	C4191, C4192		CCSQSL470J50
	C3016		CEANP3R3M50
	C2301, C2302, C3101, C3102, C3104		CEAS010M50
	C4303, C4304, C4451, C4452		CEAS010M50
	C1021		CEAS100M16
	C2202, C3001, C4360, C4403–C4405		CEAS100M50
	C4407, C4454		CEAS100M50
	C4401, C4408		CEAS101M10
	C4453		CEAS220M16
	C1011		CEAS220M35
	C2201		CEAS221M10
⚠	C1009, C1020		CEAS221M16
⚠	C1010		CEAS221M63
⚠	C1012, C1013		CEAS222M25
	C2037–C2042, C4315, C4316		CEAS2R2M50
	C3006, C4103, C4104, C4309, C4310		CEAS330M16
	C4317, C4318		CEAS330M16
	C4107, C4108, C4352, C4357, C4358		CEAS470M10
⚠	C1019		CEAS471M35
	C2003, C2004, C4207, C4208		CEAS4R7M50
	C4301, C4302		CEAS4R7M50
	C4402, C4406		CEASR68M50
	C4361		CKCYB681K500
	C2101–C2104, C4501–C4503		CKCYF473Z50
	C2005, C2013, C3103		CKSQYB102K50
	C4411, C4412		CKSQYB152K50
	C4313, C4314		CKSQYB182K50
	C2114		CKSQYB221K50
	C4307, C4308		CKSQYB273K50
	C4353, C4354		CKSQYB332K50
	C3005, C4355		CKSQYB472K50
	C2043		CKSQYB473K50
	C2014		CKSQYB562K50
	C4105, C4106		CKSQYB682K50
	C2011, C2012		CKSQYB822K50
	C4311, C4312		CKSQYB823K25
	C3002, C3007, C3008		CKSQYF103Z50
	C2008–C2010, C3004, C3017, C3018		CKSQYF104Z50
	C4409, C4410		CQMA103J50
	C4356		CQMA223J50
	C2006, C2007		CQMA683J50
	C4359		CQPA822J100

RESISTORS

Mark	No.	Description	Parts No.
	VR4901 (2.2kΩ)		RCP1019
	VR4201–VR4204 (22kΩ)		RCP1046
	VR4301, VR4302 (4.7kΩ)		RCP1139
	VR4351, VR4352 (470kΩ)		RCP1143
	R1004		RD1/2PM222J
	R2306		RD1/2PM330J
	R4353		RD1/2PM470J
	R2103, R2104		RD1/2PMFL101J
	R2105, R2106		RD1/4PM4R7J
	R1023		RD1/4PMF010J
	R1008, R1015, R1016		RD1/6PM102J
	R4325, R4326		RD1/6PM103J
	R1010		RD1/6PM222J
	R1003		RD1/6PM332J
	R1020		RD1/6PM471J
	R4357		RD1/6PM4R7J
	R4354		RD1/6PM682J
	R4113, R4114, R4323, R4324		RD1/6PM820J
	R2305		RS2LMF121J
	R2101, R2102		RS2LMF331J
	R1001, R1002		RS2LMFR22J
	R2210		RS3LMF431J
	R1018		RS3LMF680J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN23	FFC CONNECTOR (28P)	52044–2845
	CN17	FFC CONNECTOR (19P)	52045–1945
	CN20	FFC CONNECTOR (35P)	52045–3545
	CN22	JUMPER CONNECTOR (7P)	52147–0710
	CN11	JUMPER CONNECTOR (13P)	52147–1310
	JA28	PIN JACK (4P)	AKB7044
	CN10	SPEAKER TERMINAL 4–P	AKE7024
	CN4003	TOP POST (2P)	B2B–EH
	CN4002	TOP POST (3P)	B3B–EH
	CN4001	TOP POST (3P)	B3B–EH–R
	J3001	BOARD–IN WIRE	DB020ND0
	J3002	BOARD–IN WIRE	DB925ND0
	X3001 (8.00MHz)		DSS1053
	CN16	PLUG (14P)	KM200IA14
	JA13	REMOTE CONTROL JACK	RKN1004
	CN19	CONNECTOR (12P)	TUC–P12P–B1
		PCB BINDER	VEF1008
	JA12	PIN JACK (2P)	VKB1050

AMP ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
⚠	IC302		ICP–N10
⚠	IC301		STK4192–2GP

CAPACITORS

Mark	No.	Description	Parts No.
	C315		CEANP220M50
	C313		CEANP470M50
	C301, C302, C311, C312, C314		CEAS100M50
	C309, C310		CEAS101M25
	C307, C308		CEAS101M50
	C303, C304		CKSQYB272K50
	C351		CKSQYB473K50

RESISTORS

Mark	No.	Description	Parts No.
	R318, R320		RD1/2PM222J
	R311–R314		RD1/2PM332J
	R307, R308		RD1/4PM561J
	R309, R310		RD1/4PM563J
	R352		RD1/4PMF010J
	R315, R317		RD1/4PMFL101J
	R319		RD1/4PMFL471J
	R316		RS1LMF102J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	TH351	THERMISTOR	AEX7002

REG ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
⚠	IC601		NJM7805FA
⚠	IC603		NJM78M12FA
⚠	IC602		NJM7906FA
	D601		MTZJ7.5A

CAPACITORS

Mark	No.	Description	Parts No.
	C611–C613		CEAS100M16
	C601–C603		CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	All Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	J14	JUMPER WIRE (10P)	D20PWW1020E

PRIMARY ASSY

RESISTORS

Mark	No.	Description	Parts No.
⚠	R101 (2.2MΩ, 1/2W)		ACN–208

SECONDARY ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
⚠	IC1003		ICP–N50

GM-CD ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC8151		CXA1372Q
	IC8301		CXD2508AQ
⚠	IC8201, IC8202		LA6520
	IC8401		NJM4558M–D
	IC8001		PD4664A
	Q8401, Q8402		2SD2114K
	Q8301		2SK246
	Q8302		DTA124EK
	Q8403, Q8404		DTA143EK
	D8001, D8002, D8301, D8302		1SS254
	D8401, D8402		DAN202K

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L8321		LAU1R2J
	L8001		LAU220J

CAPACITORS

Mark	No.	Description	Parts No.
	C8322		CCSQCH100D50
	C8006, C8007, C8350, C8351		CCSQCH101J50
	C8407–C8410		CCSQCH121J50
	C8323		CCSQCH220J50
	C8403–C8406		CCSQCH271J50
	C8401, C8402		CCSQCH391J50
	C8411, C8412		CEANP2R2M50

Mark	No.	Description	Parts No.
	C8004, C8301		CEAS101M10
	C8165, C8166		CEAS4R7M50
	C8309		CEASR47M50
	C8302, C8303		CGCYX104M16
	C8008, C8009, C8162, C8321		CKSQYB102K50
	C8152, C8157, C8160		CKSQYB103K50
	C8306		CKSQYB152K50
	C8352		CKSQYB223K50
	C8161		CKSQYB332K50
	C8151, C8159		CKSQYB333K50
	C8163		CKSQYB472K50
	C8002, C8003, C8307		CKSQYB473K50
	C8164		CKSQYB561K50
	C8158, C8203–C8209, C8308		CKSQYF103Z50
	C8153–C8156, C8167, C8420, C8421		CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR8151, VR8152 (22kΩ)		RCP1103
	R8013–R8015		RD1/6PM102J
	R8030		RD1/6PM103J
	R8210, R8211		RD1/6PM104J
	R8020, R8021, R8024		RD1/6PM473J
	R8039		RD1/6PM563J
	R8901		RS1/8S000J
	R8017		RS1/8S102J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN67	FFC CONNECTOR (19P)	52045–1945
	CN8002	FFC CONNECTOR (22P)	52045–2245
	CN8201	SIDE POST (6P)	VKN–004
	X8301 (33.8688MHz)		ASS7000
	X8001 (4.19MHz)		VSS1014

VR ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC701		NJM4558M–D
	Q703, Q704		2SA1162
	Q705, Q706		2SC2712

CAPACITORS

Mark	No.	Description	Parts No.
	C717		CEAS100M50
	C707, C708		CEAS2R2M50
	C721, C722		CEASR47M50
	C711, C712, C715, C716, C718		CKSQYF104Z50
	C720		CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR701 (50kΩ–Bx2)		ACX7020
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN69	CONNECTOR (12P)	TUC–P12X–B1

FRONT ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC501		NJM4558M–D
	Q554		2SB1197K
	Q551, Q552		2SD1781K
	Q553		DTC124EK
	Q531–Q537		DTC143EK
	D402–D405, D501, D503–D506		1SS254
	D509, D551–D561		1SS254
	D537		MAA5064X
	D531–D536		MPG5064X
	D538		SLR–342VCT31

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L515		LAU120J
	L591		LAU180J
	L501		LAU5R6J

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S401, S402, S501, S503, S504		ASG1034
	S507–S511, S513–S524		ASG1034

CAPACITORS

Mark	No.	Description	Parts No.
	C503		CCSQCH221J50
	C501, C502, C504, C505		CEAS010M50
	C508, C509		CEAS010M50
	C507		CKSQYB153K50
	C506, C518		CKSQYB222K50
	C520, C593		CKSQYB272K50
	C531		CKSQYF103Z50
	C401, C402, C511, C512		CKSQYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR501 (10kΩ–B)		ACS7007
	R555		RD1/6PM122J
	R538		RD1/6PM221J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (9P)	51063–0905
		CABLE HOLDER (15P)	51063–1505
	CN73	FFC CONNECTOR (28P)	52045–2845
	CN70	FFC CONNECTOR (35P)	52045–3545
	V401	FL TUBE	AAV7024
	JA15	SR JACK	AKN7004
	JA14	MINITURE JACK	AKN7005
		REMOTE RECEIVER UNIT	GP1U58X

HOME SW ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S951		DSG1016

HOOD SW ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S801		DSG1015

OTHERS

Mark	No.	Description	Parts No.
	J24	JUMPER WIRE (3P)	D20PWW0310E

TACT SW ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S502, S505, S506		ASG1034

MECHA PCB ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q651		DTC124ES
	D651		VRPG5615S

RESISTORS

Mark	No.	Description	Parts No.
	R652 (10kΩ)		ACN7011
	R651 (56kΩ)		ACN7012
	R653 (220Ω, 1/6W)		DCN1062
	R654 (0Ω)		DCN1065

Mark	No.	Description	Parts No.
OTHERS			
	CN652	FPC CONNECTOR (12P)	12FMZ–AST
	CN651	MT CONNECTOR (4P)	173979–4
	CN653	FFC CONNECTOR (22P)	SLEM22R–2

SENSOR PCB ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	D652		GP1S24

OTHERS

Mark	No.	Description	Parts No.
	J652	JUMPER WIRE (3P)	D20PWW0315E

MOTOR PCB ASSY

OTHERS

Mark	No.	Description	Parts No.
		LOADING MOTOR	VXM1034

SW PCB ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S651, S652		VSG1006

OTHERS

Mark	No.	Description	Parts No.
	J656	JUMPER WIRE (3P)	D20PWW0315E

MECHANISM BOARD ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S610		DSG1016

OTHERS

Mark	No.	Description	Parts No.
	CN610	MT CONNECTOR (4P)	173979–4

7. ADJUSTMENTS

7.1 TUNER SECTION

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98 Non modulation	80 or more	—	L6207	Adjust so that the DC voltage between IC6201-Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) becomes 0V±50mV.
2	Front End Sensitivity	98	10-30	98MHz	L6102 T6101	Adjust so that the DC voltage between the IC6201-Pin 12 and GND (or ⊕ leads of C6238 and GND) becomes at maximum level.
3	Stereo Distortion	98	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
4	TUNED IND. Lighting Level	98	15±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM →FM.*

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999	47±2	999kHz[*1]	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

*1: For the area using 10kHz step, frequencies should be 1000 kHz

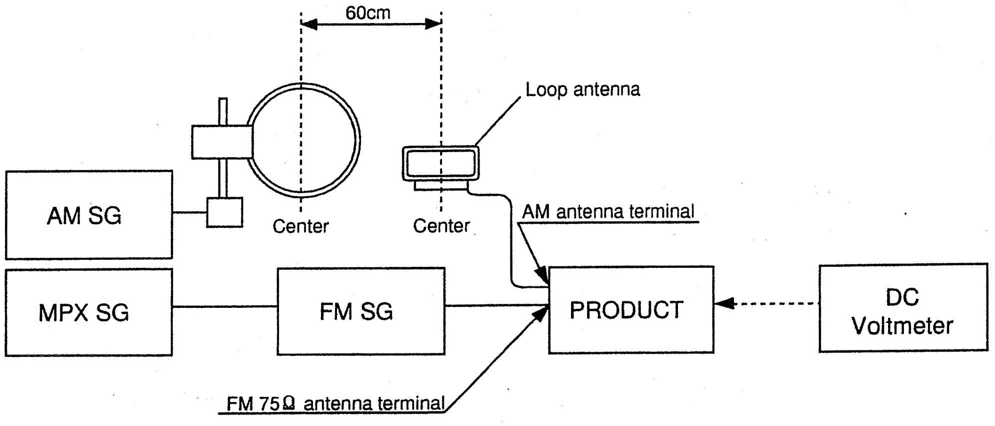


Fig. 1–1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE (AXQ3112)

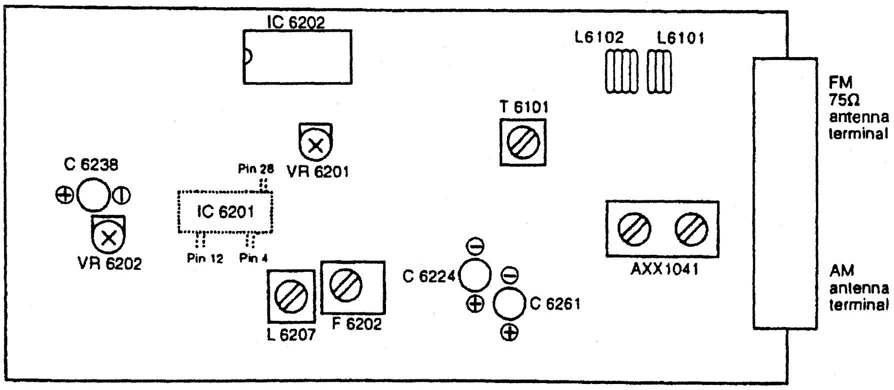

IC 6202
L6102
L6101
FM
75Ω
antenna
terminal
T 6101
C 6238
Pin 28
VR 6201
IC 6201
VR 6202
Pin 12
Pin 4
C 6224
C 6261
AXX1041
AM
antenna
terminal
L 6207
F 6202

Fig. 1–2 Adjustment Points

7. 2 CASSETTE DECK SECTION

- Adjustment points and test points are shown in Fig. 2-3 and Fig. 2-4.

■ Mechanical Adjustment

- Test tape: STD-301 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	STD-301 (Playback: 3kHz)	AF Assy VR4901	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ±20Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3000Hz ±60Hz).	

■ Electrical Adjustment

Check the following before starting.

1. Confirm that the tape speed adjustment has been completed.
2. Clean the heads and demagnetize them using a head eraser.
3. Set the measurement level to 0 dBV = 1 Vrms.
4. Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
   STD-331E: For playback adjustment
   STD-631or STD-632: Normal blank tape
5. Provide yourself with the following measuring devides:
   - AC millivoltmeter
   - Low-frequency oscillator
   - Attenuator
   - Oscilloscope
6. Adjust both right and left channels unless otherwise specified.
7. Turn the DOLBY NR switch off unless otherwize specified.
8. Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
9. Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

1. Head Azimuth Adjustment
2. Playback Level Adjustment

Recording Adjustment (Deck II)

1. Bias Oscillation Frequency Adjustment
2. Recording Bias Adjustment
3. Recording Level Adjustment.
4. ALC Operation Check

* *As the reference recording level is 250nwb / m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb / m). When adjusting, pay carefull attention to the type of tape used.*

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"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

0 dB: 315 Hz, 250 nwb/m

0 dB 30s	30s	30s	30s	10s	10s											10s
315Hz	6.3kHz	10kHz	315Hz	14kHz	12.5 kHz	10kHz	8kHz	6.3kHz	4kHz	2kHz	1kHz	500Hz	250Hz	125Hz	63Hz	40Hz

-20dB

Fig. 2–1 STD-331E Test Tape

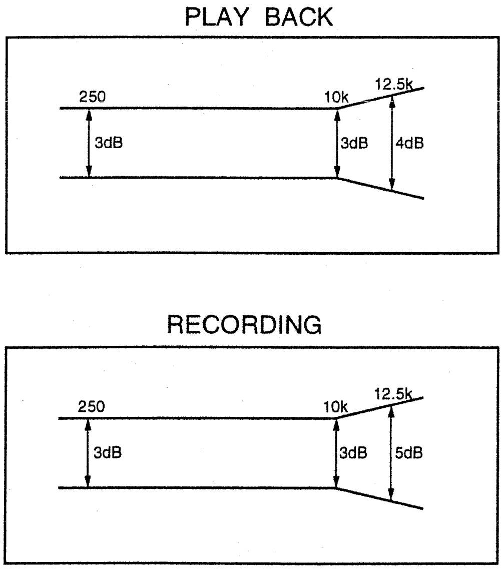


Fig. 2–2 Frequency Characteristics

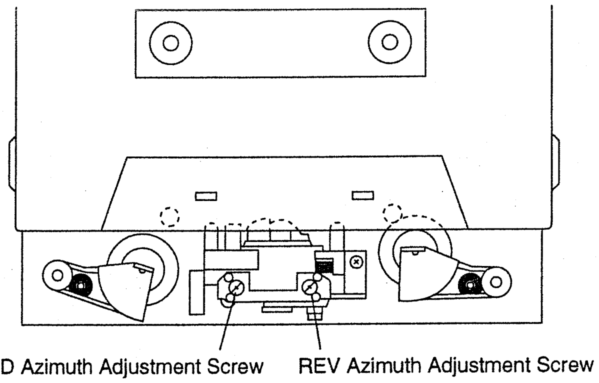


Fig. 2–3 Head Azimuth Adjustment

■ Playback Adjustment

1. Head Azimuth Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	PLAY	STD-331E test tape (Playback: 10kHz, –20dB)	Deck I	Head azimuth adjustment screw (Fig. 2-3)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
				Deck II				

2. Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	PLAY	STD-331E test tape (Playback: 315Hz, 0dB)	Deck I	VR4203 (Lch) VR4204 (Rch)	TAPE TEST POINT (L, Rch) (AF Assy)	– 4.2 dBV	
				Deck II	VR4201 (Lch) VR4202 (Rch)			

Note: Please execute playback level adjustment always in the order of deck I → deck II.
When deck I has been adjusted, always adjust deck II also.

■ Recording Adjustment

1. Bias Oscillation Frequency Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Load the STD–631 or STD–632 test tape and set the recording mode.	Deck I	————	————	Oscillation frequency to be 105.0kHz ±2kHz.	When the power is turned ON while the MEMORY button is depressed, the frequency will decrease 2 – 3 kHz.
				Deck II	L4351	Between Ⓐ point in Fig. 2-4 and GND.		

2. Recording Bias Adjustment

- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Input a 315Hz signal to the AUX/ CD II terminal and set the input selector to AUX/CD II.	Deck I	——	TAPE TEST POINT (L, Rch) (AF Assy)	– 24.2 dBV	
				Deck II	Input signal level			
2	NORMAL	REC→ PLAY	Load the STD-631 or STD-632 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below)	Deck I	——	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0±0.5dB from that of the 315Hz signal.	
				Deck II	VR4351 (Lch) VR4352 (Rch)			

Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

3. Recording Level Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Input a 315Hz signal to the AUX/CD II terminal and set the input selector to AUX/CD II.	Deck I	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	- 8.2 dBV	
				Deck II				
2	NORMAL	REC → PLAY	STD-631 or STD-632 test tape and record/playback the 315Hz signal.	Deck I	——	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes -8.2dBV.	
				Deck II	VR4301 (Lch) VR4302 (Rch)			

4. ALC Operation Check

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Input a 315Hz signal to the AUX/CD II terminal and set the input selector to AUX/CD II.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	- 8.2 dBV	
2				Set to a level +10 dB above the input level at step 1.		Confirm that the reading is –3.2±2.5dBV.	

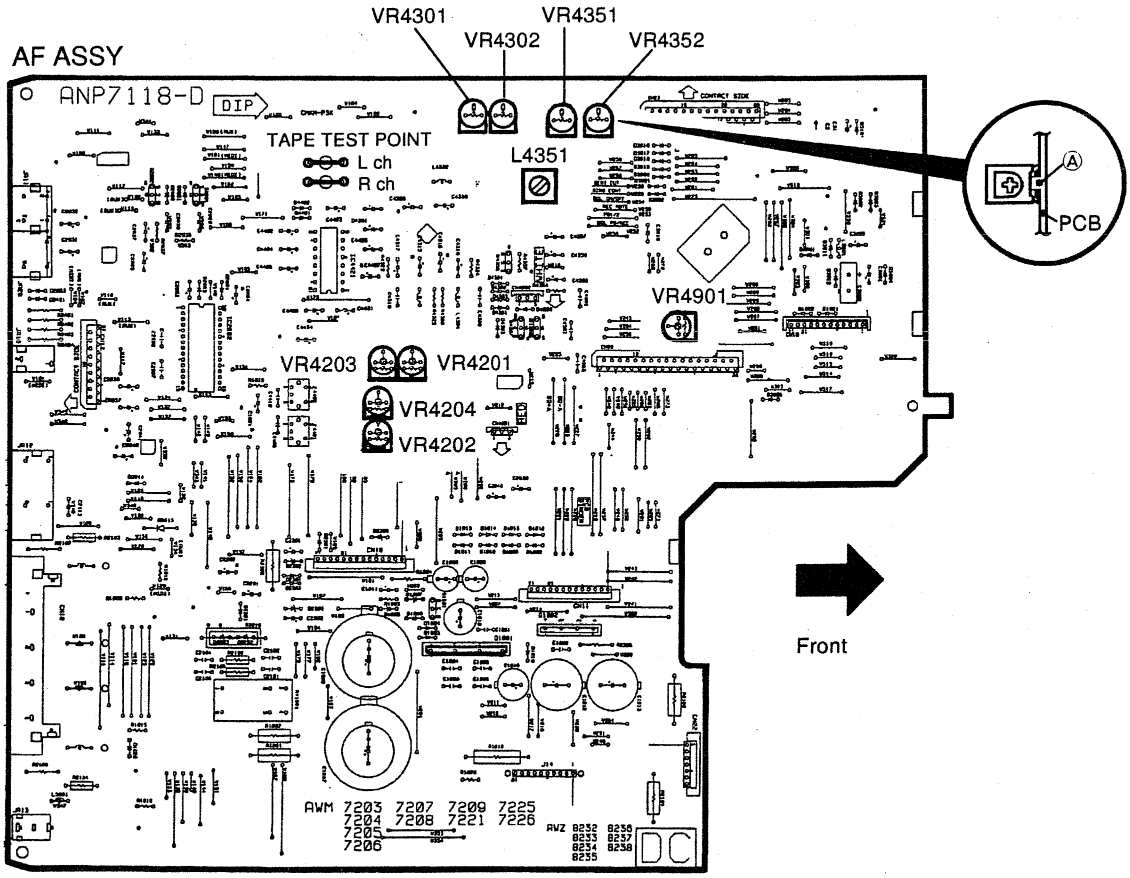
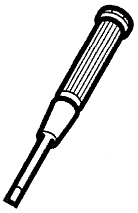
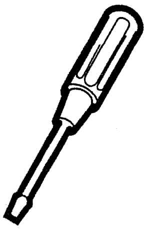
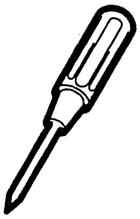
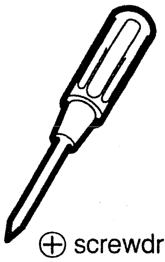
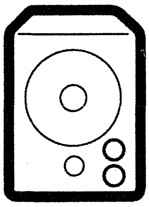
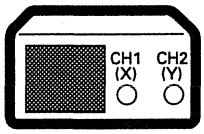
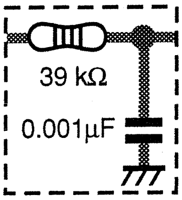

VR4301
VR4351
VR4302
VR4352
AF ASSY
ANP7118-D
DIP
TAPE TEST POINT
L ch
R ch
L4351
VR4901
VR4203
VR4201
VR4204
VR4202
A
PCB
Front
AWM 7203 7207 7209 7225
7204 7208 7221 7226
7205
7206
AVZ 8232 8236
8233 8237
8234 8238
8235
DC

Fig. 2–4 Adjustment and Measurement points

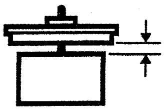
7.3 CD SECTION (CD部の調整)

1. PREPARATIONS (準備)

1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001µF)

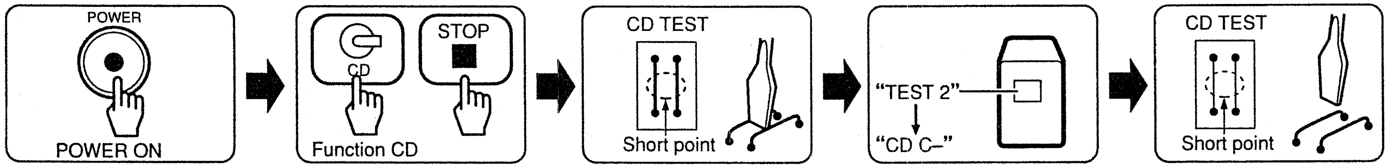
1.2 Necessary Adjustment Points (調整に必要な項目)

When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6. → Page 53~55
Exchange CD ASSY (CD ASSYを交換した時)	1.2.3.4.5.6. → Page 53~55
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6. → Page 53~55
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 12

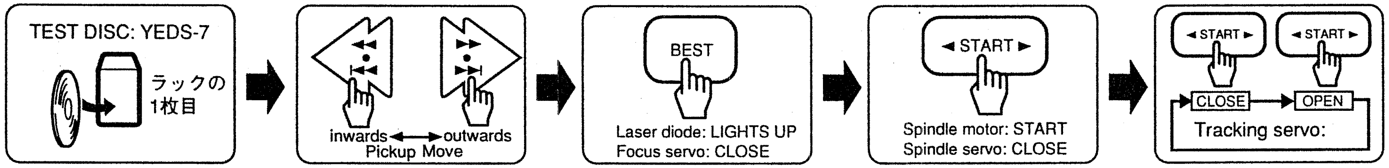
2. ADJUSTMENT (調整)

2.1 How to Start/Cancel Test Mode （テストモ-ドの設定/解除）

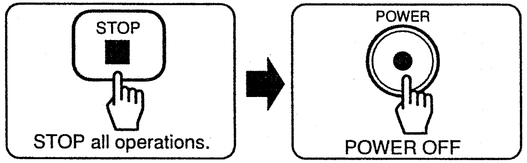
TEST MODE: ON


POWER
POWER ON
CD
STOP
Function CD
CD TEST
Short point
"TEST 2"
"CD C–"
CD TEST
Short point

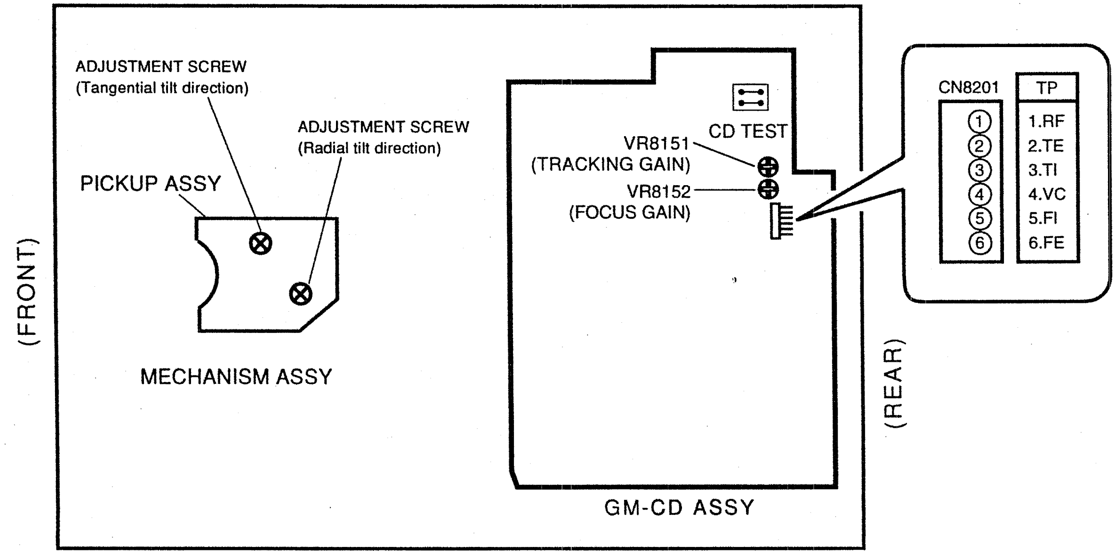
TEST MODE:


TEST DISC: YEDS-7
ラックの
1枚目
inwards
outwards
Pickup Move
BEST
Laser diode: LIGHTS UP
Focus servo: CLOSE
◄ START ►
Spindle motor: START
Spindle servo: CLOSE
◄ START ►
◄ START ►
CLOSE
OPEN
Tracking servo:

TEST MODE: STOP → CANCEL


STOP
STOP all operations.
POWER
POWER OFF

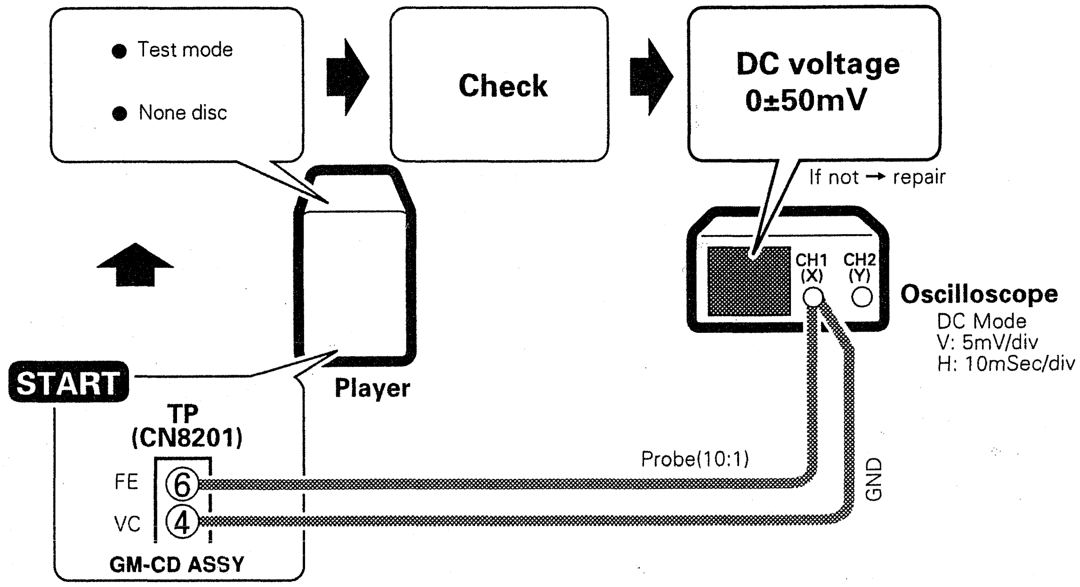
2.2Adjustment Locations（テストポイントと調整用VRの位置）


ADJUSTMENT SCREW
(Tangential tilt direction)
ADJUSTMENT SCREW
(Radial tilt direction)
PICKUP ASSY
MECHANISM ASSY
(FRONT)
CD TEST
VR8151
(TRACKING GAIN)
VR8152
(FOCUS GAIN)
GM-CD ASSY
(REAR)
CN8201
TP
①
②
③
④
⑤
⑥
1.RF
2.TE
3.TI
4.VC
5.FI
6.FE

2.3 Check and Adjustment (確認、調整)

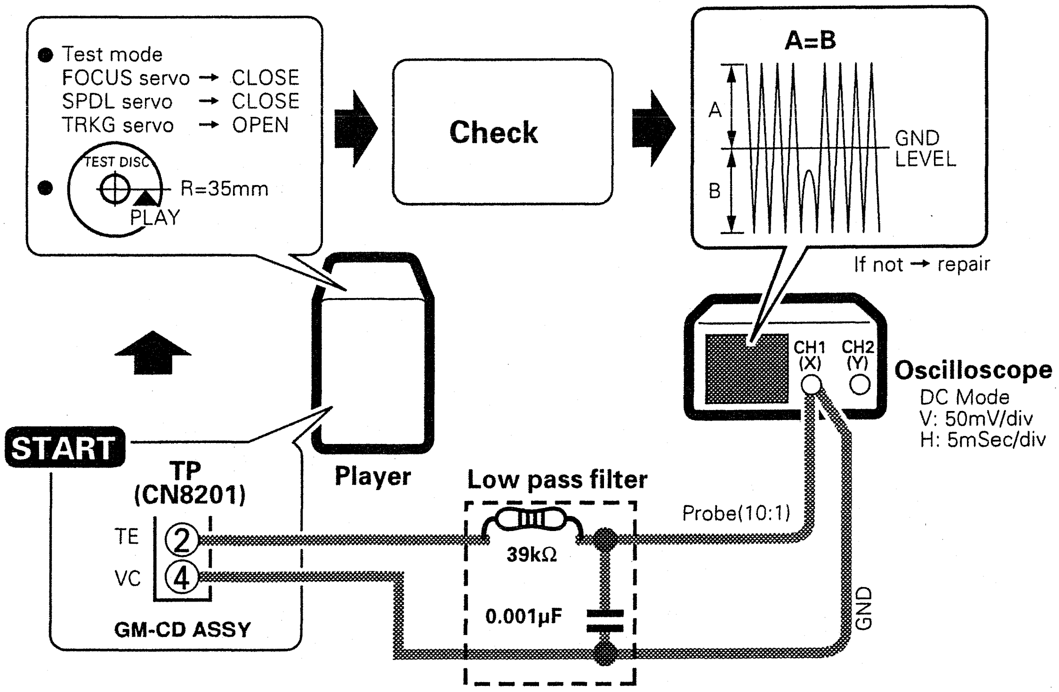
1. Focus Offset Check

(フォーカスオフセット確認)


● Test mode
● None disc
Check
DC voltage
0±50mV
If not → repair
CH1 (X)
CH2 (Y)
Oscilloscope
DC Mode
V: 5mV/div
H: 10mSec/div
START
Player
TP
(CN8201)
FE
⑥
VC
④
GM-CD ASSY
Probe(10:1)
GND

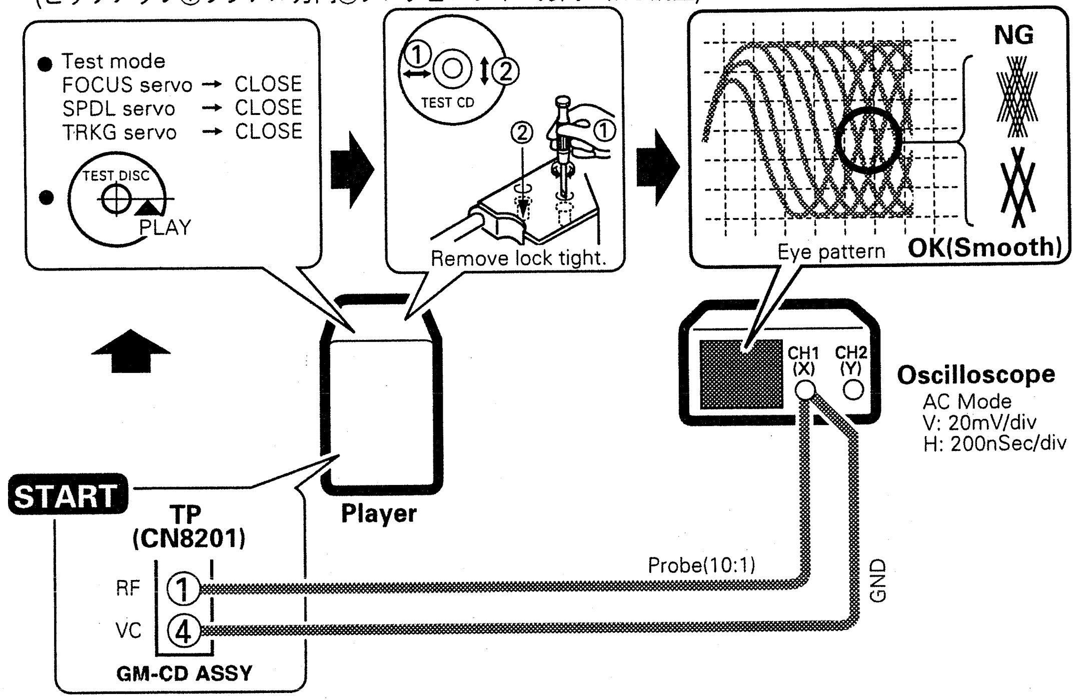
2. Tracking Error Balance Check

(トラッキングエラーバランス確認)


● Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → OPEN
● TEST DISC
R=35mm
PLAY
Check
A=B
A
B
GND LEVEL
If not → repair
CH1 (X)
CH2 (Y)
Oscilloscope
DC Mode
V: 50mV/div
H: 5mSec/div
START
Player
TP
(CN8201)
TE
②
VC
④
GM-CD ASSY
Low pass filter
39kΩ
0.001μF
Probe(10:1)
GND

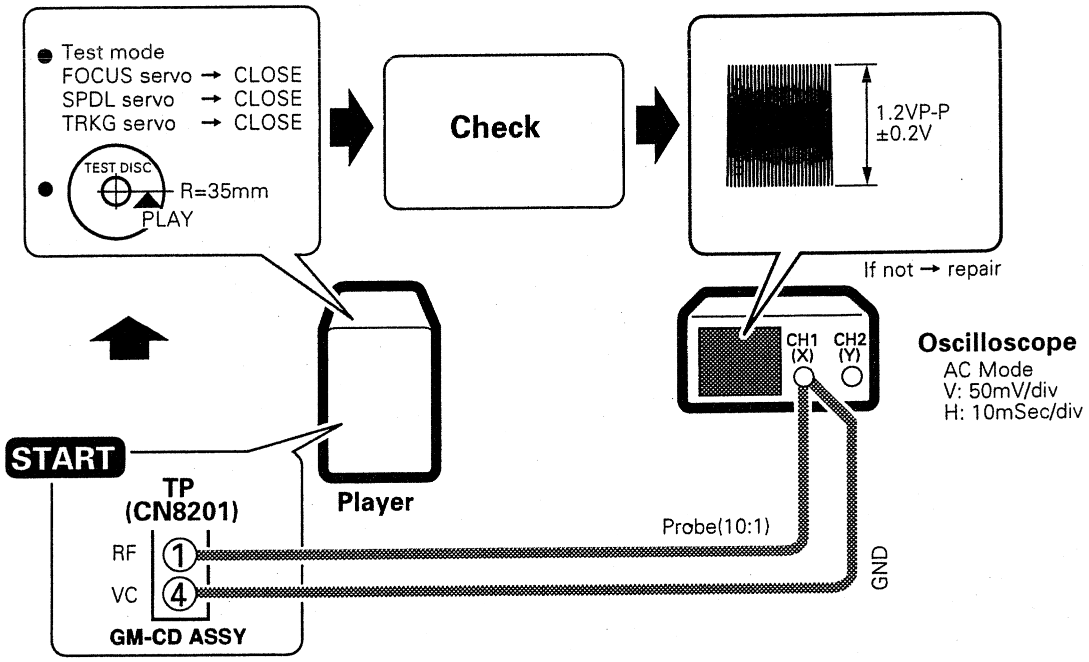
3. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)

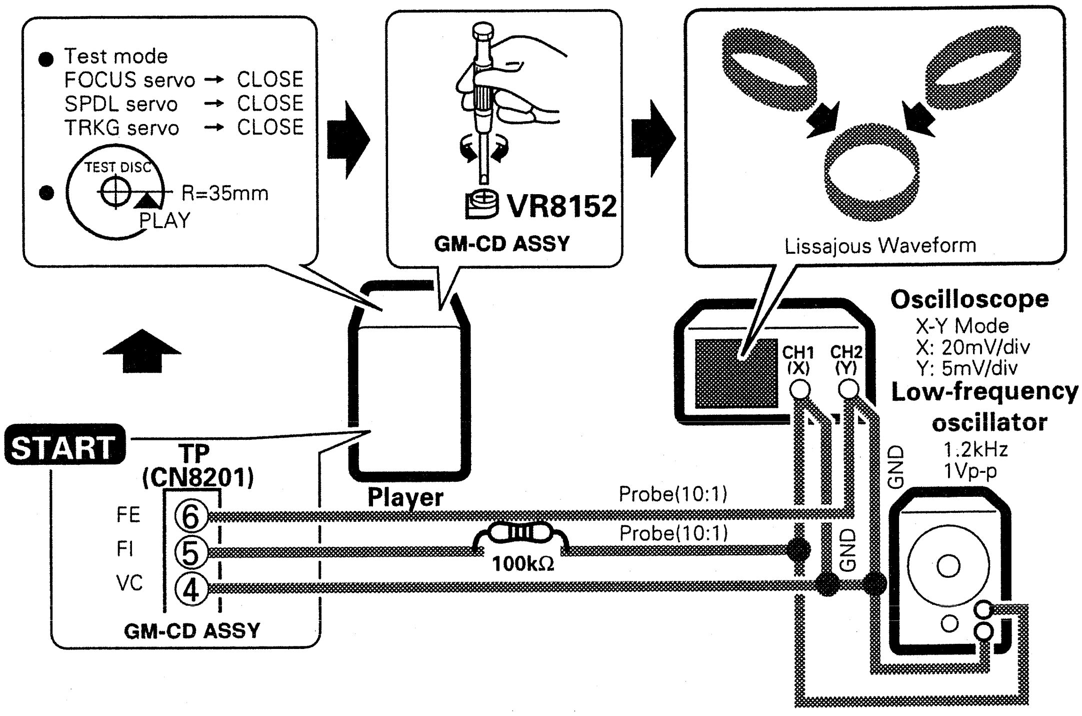

● Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
● TEST DISC
PLAY
①
②
TEST CD
②
①
Remove lock tight.
NG
Eye pattern
OK(Smooth)
START
TP
(CN8201)
RF ①
VC ④
GM-CD ASSY
Player
Oscilloscope
AC Mode
V: 20mV/div
H: 200nSec/div
CH1 (X)
CH2 (Y)
Probe(10:1)
GND

4. RF LEVEL CHECK

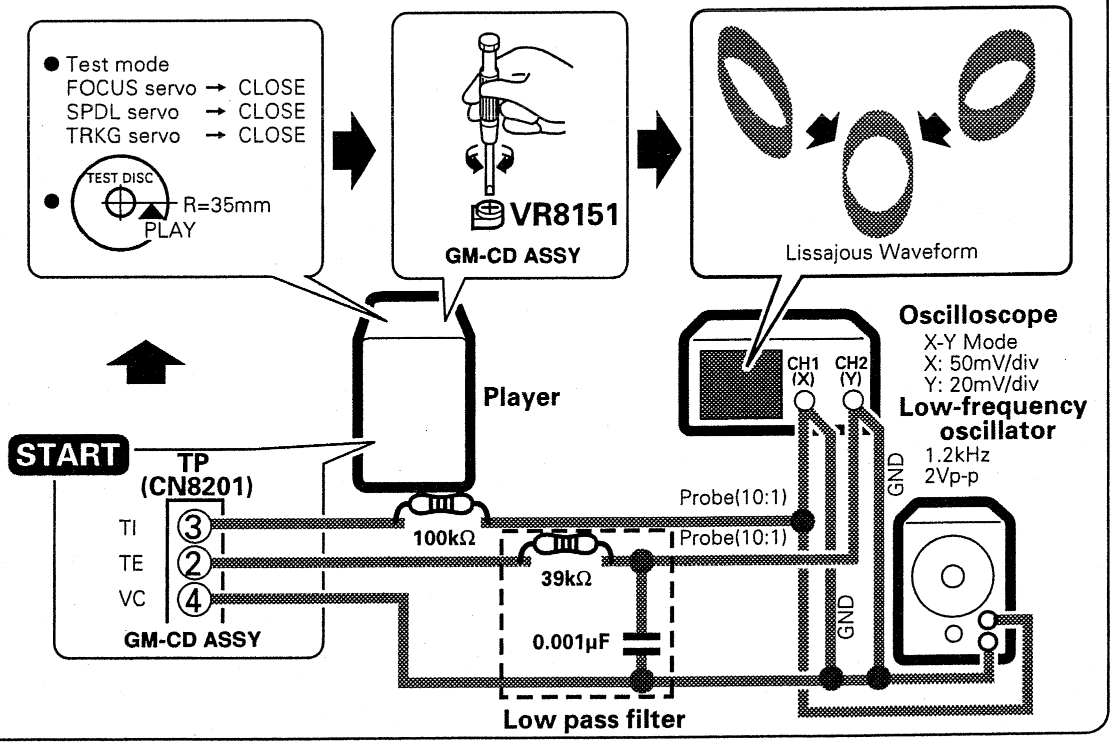
(RFレベル確認)


● Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
● TEST DISC
R=35mm
PLAY
Check
1.2VP-P
±0.2V
If not → repair
START
TP
(CN8201)
RF ①
VC ④
GM-CD ASSY
Player
Oscilloscope
AC Mode
V: 50mV/div
H: 10mSec/div
CH1 (X)
CH2 (Y)
Probe(10:1)
GND

5. Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)


● Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
TEST DISC
● R=35mm
PLAY
VR8152
GM-CD ASSY
Lissajous Waveform
Oscilloscope
X-Y Mode
X: 20mV/div
Y: 5mV/div
CH1 (X)
CH2 (Y)
Low-frequency oscillator
1.2kHz
1Vp-p
GND
START
TP (CN8201)
FE ⑥
FI ⑤
VC ④
GM-CD ASSY
Player
Probe(10:1)
Probe(10:1)
100kΩ
GND

6. Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)


● Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
TEST DISC
● R=35mm
PLAY
VR8151
GM-CD ASSY
Lissajous Waveform
Oscilloscope
X-Y Mode
X: 50mV/div
Y: 20mV/div
CH1 (X)
CH2 (Y)
Low-frequency oscillator
1.2kHz
2Vp-p
GND
Player
START
TP (CN8201)
TI ③
TE ②
VC ④
GM-CD ASSY
Probe(10:1)
Probe(10:1)
100kΩ
39kΩ
0.001μF
GND
Low pass filter

8. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

■ PDG164A (IC3001 : AF ASSY)

● System Control Micro Computer

● Pin Function

No.	Pin Name	I/O	Description	ACT
1	PE1EC1/INT1	I	NOT USED	–
2	PE2/INT2	I	DISP CLK EDGE	↓
3	PE3/INT3/NMI	I	NOT USED	–
4	PE4/RMC	I	REMOCON	L
5	PE5/CTL	I	NOT USED	–
6	PE6/PWM	O	CD RESET	L
7	PE7/TO/ADJ	O	SR MUTE	L
8	PB0/CINT	I	TUNED	L
9	PB1/CS0	I	STEREO	L
10	PB2/SCK0	I	DISP CLK	↓
11	PB3/SI0	I	DISP DATA	–
12	PB4/SO0	O	PLL CE	H
13	PB5/SCK1	O	EX CLK	↑
14	PB6/SI1	O	PM0006 CE	H
15	PB7/SO1	O	EX DATA	–
16	PC0/KR0	I	KEY IN 3	H
17	PC1/KR1	I	KEY IN 2	H
18	PC2/KR2	I	KEY IN 1	H
19	PC3/KR3	I	KEY IN 0	H
20	PC4/KR4	I	KEY IN 4	H
21	PC5/KR5	C	POWER	H
22	PC6/KR6	C	VOLUME UP	L
23	PC7/KR7	C	VOLUME DOWN	L
24	PH0	C	LED –	H
25	PH1	C	LED ⏮	H
26	PH2	C	LED ◄	H
27	PH3	C	LED ►	H
28	PH4	C	LED ⏭	H
29	PH5	C	LED +	H
30	PH6	C	LED STOP	–
31	PH7	I	Connected to GND	–
32	PA0/AN0	A/D	TEMP *1	–
33	PA1/AN1	I	FST *1	–
34	PA2/AN2	A/D	LEV *1	–
35	PA3/AN3	I	Connected to GND	–
36	PA4/AN4	I	Connected to GND	–
37	PA5/AN5	I	Connected to GND	–
38	RST	–	RESET	–
39	EXTAL	–	Connected to Osillator (8MHZ)	–
40	XTAL	–	Connected to Osillator (8MHZ)	–
41	Vss	–	Connected to GND	–
42	TX	–	OPEN	–
43	TEX	–	OPEN	–
44	PA6/AN6	I	PULSE 1	EG
45	PA7/AN7	I	PULSE 2	EG
46	AVref	–	Connected to 5V	EG
47	AVss	–	Connected to GND	–
48	PD0/S0	P	SOL 1	H
49	PD1/S1	P	SOL 2	H
50	PD2/S2	P	MOTOR	H
51	PD3/S3	P	DOLBY NR	L
52	PD4/S4	P	REC MUTE	H
53	PD5/S5	P	PB/$\overline{\text{REC}}$	–
54	PD6/S6	P	PB 1/$\overline{2}$	–

** 1 : Refer to page 58.*

No.	Pin Name	I/O	Description	ACT
55	PD7/S7	P	BIAS	H
56	PF0/S8	P	BEAT CUT	H
57	PF1/S9	P	FAN *1	H
58	PF2/S10	P	IDLE MUTE	L
59	PF3/S11	P	PHONO	H
60	PF4/S12	P	TX MONO	H
61	PF5/S13	P	TX ON	H
62	PF6/S14	P	AF MUTE	H
63	PF7/S15	P	NOT USED	H
64	P10/S16	P	S16	H
65	P11/S17	P	S15	H
66	P12/S18	P	S14	H
67	P13/S19	P	S13	H
68	P14/S20	P	S12	H
69	P15/S21	P	S11	H
70	P16/S22	P	S10	H
71	P17/S23	P	S9	H
72	T15/S24	P	S1	H
73	T14/S25	P	S2	H
74	T13/S26	P	S3	H
75	T12/S27	P	S4	H
76	T11/S28	P	S5	H
77	T10/S29	P	S6	H
78	T9/S30	P	S7	H
79	T8/S31	P	S8	H
80	T7	P	NOT USED	–
81	T6	P	G1	H

*1 : *Refer to page 58.*

No.	Pin Name	I/O	Description	ACT
82	T5	P	G2	H
83	T4	P	G3	H
84	T3	P	G4	H
85	T2	P	G5	H
86	T1	P	G6	H
87	T0	P	G7	H
88	Vfdp	–	CONNECTED TO –30V	–
89	Vdd	–	CONNECTED TO 5V	–
90	NC	–	OPEN	–
91	Vss	–	CONNECTED TO GND	–
92	PG0/RT00	O	CD CLK	↑
93	PG1/RT01	I/O	CD DATA	–
94	PG2/RT02	I/O	SB REQ/ENA	L
95	PG3/RT03	O	4052 B	H
96	PG4	O	4052 A	H
97	PG5	O	4052 INH	H
98	PG6	O	SP RELAY	H
99	PG7	O	CD POWER ON	H
100	PE0/EC0/INT0	I	AC	EG

I/O : INPUT/OUTPUT
I : INPUT
O : OUTPUT
C : CMOS OUTPUT
P : Pch OPEN DRAIN OUTPUT
A/D : A/D CONVERTER INPUT
EG : EDGE

■ IN REGARD TO FAN CONTROL

(1) FAN CONTROL pin functions/names

The following five signals are used for L/H switching of the fan speed and for forces switching the set from Power on status to STD-by status.

	Function	Operation
PWON *1	The power status of the set is displayed.	L is displayed for STD-by and H for Power on.
FAN *2	The fan rotation status is shown.	L is displayed for L speed and H for H speed. The initial display at the time of Power on is L.
TEMP	The power pack temperature is detected.	The fan L/H speed is switched and the set is dropped to standby status according to the detected temperature.
LEV	Power amplifier level detection.	The fan L/H speed is switched according to the detected level.
FST	Fan lock status detection.	L is displayed when the fan is stopped and H when it is rotating.

(2) Operation specifications

*1 Power on → STD-by switching

The set is switched to STD-by condition when one of the following conditions occurs.

- When FST is L continuously for at least 2 sec after 4 seconds have elapsed after PWON output.
- When the TEMP voltage is 1.3 V or less after 4 seconds have elapsed after PWON output.

*2-1 Fan L → H speed switching

The fan is switched from L to H speed when one of the following conditions occurs.

- When the TEMP voltage is 2.6 V or less.
- When the LEV voltage is 1.7 V or more.

*2-2 Fan H → L speed switching

The fan is switched from H to L speed when the following condition occurs.

- When the TEMP voltage is 3.3 V or more and the LEV voltage is 1.2 V or less.

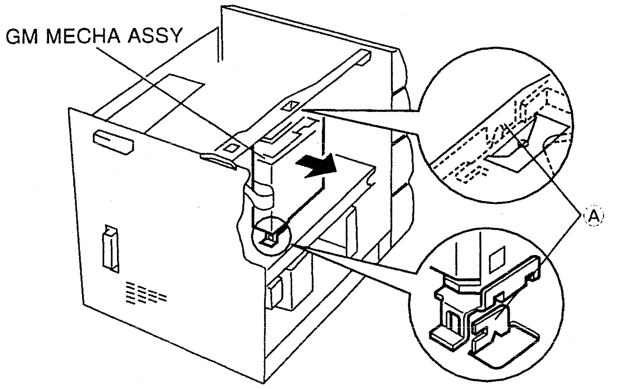
9. DISASSEMBLY

■ REMOVING THE GM MECHA ASSY

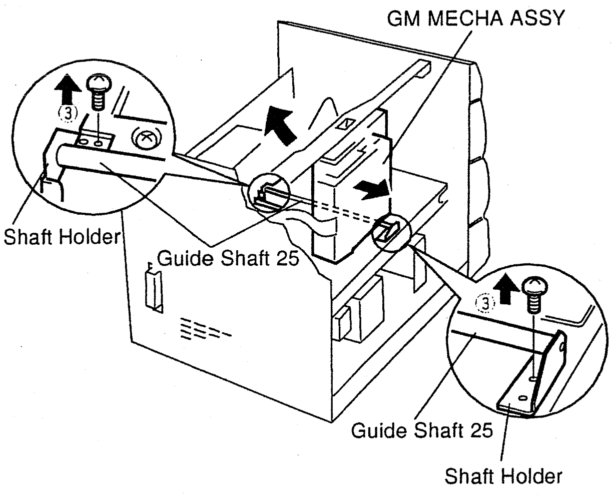
NOTE : Before removing the GM Mecha Assy, make sure you turn the power OFF and disconnect the AC power cord.

① Remove the bonnet. (Since the front of the home lock stay makes contact, hold the bonnet in that place and pull and lift at the same time.)

② Move the GM Mecha ASSY to the right (viewed from the rear), watching out for the 2 Lock locations (part Ⓐ).


GM MECHA ASSY
Ⓐ

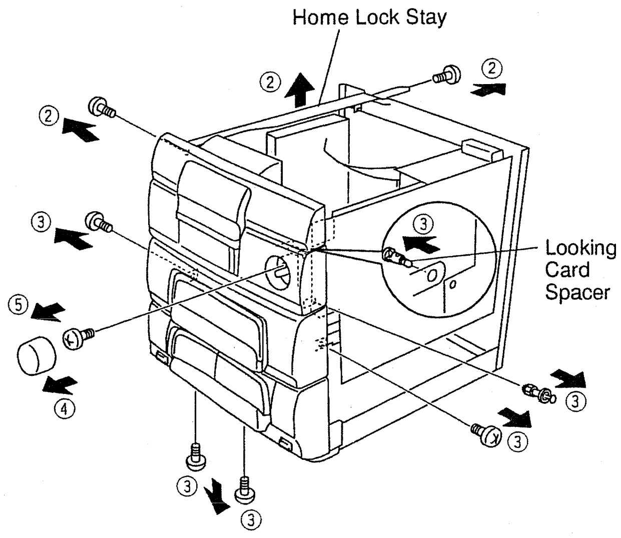
③ Remove the shaft holder that fixes guide shaft-25 in place (screw ③), and remove the GM Mecha ASSY together with guide shaft.


GM MECHA ASSY
③
Shaft Holder
Guide Shaft 25
③
Guide Shaft 25
Shaft Holder

■ REMOVING THE FRONT PANEL

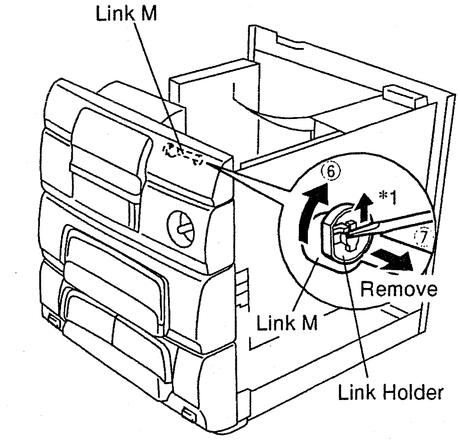
① Remove the bonnet.

②–⑤


Home Lock Stay
②
②
②
③
③
Looking Card Spacer
⑤
④
③
③
③
③

⑥ Remove the link holder (*1) that fixes link M in place.

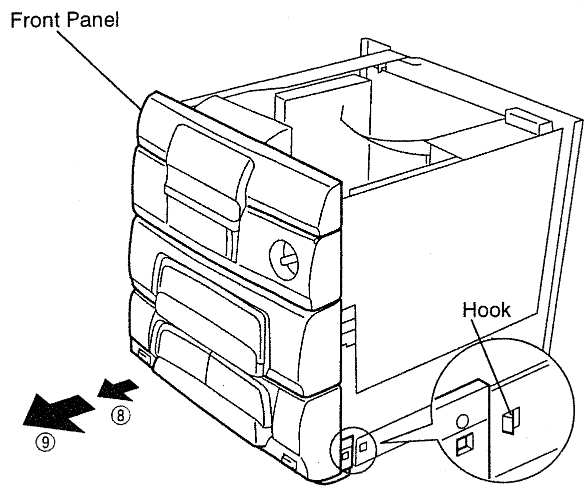
⑦ Remove the link M.


Link M
⑥
*1
⑦
Remove
Link M
Link Holder

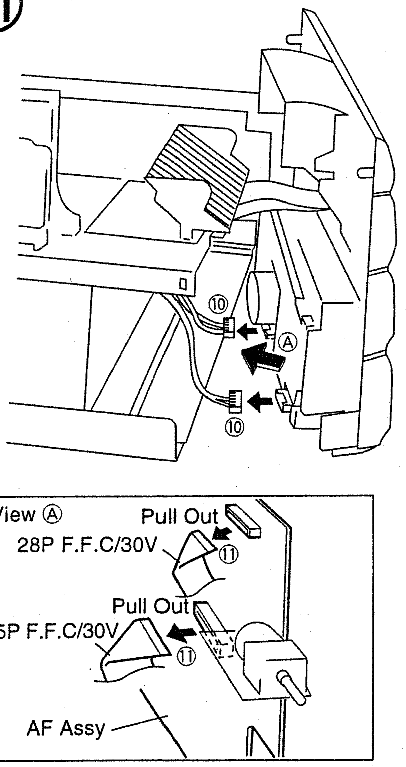
*Note *1: When removing the link holder, be careful not to press hard on the link holder hook, for this may cause the hook to break.*

⑧ Shift the front panel slightly toward you, being cautious of the left and right hook on the chassis and sub chassis.

⑨ Pull the front panel further toward you, and remove it from the chassis.


Front Panel
Hook
⑧
⑨

⑩, ⑪

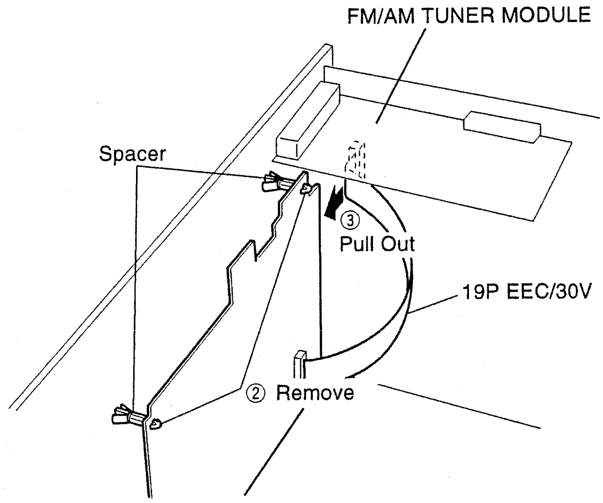

⑩
Ⓐ
⑩
View Ⓐ
Pull Out
28P F.F.C/30V
⑪
Pull Out
35P F.F.C/30V
⑪
AF Assy

■ REMOVING THE AMP ASSY

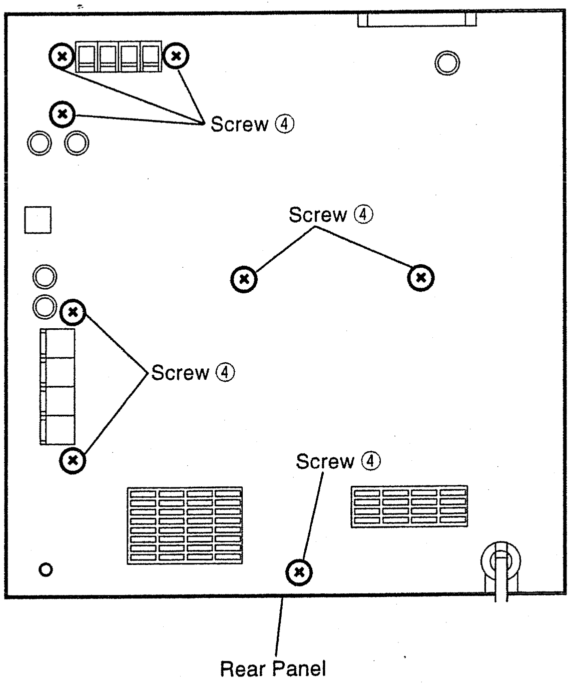
① Remove the bonnet and home lock stay. (Refer to "■ Removing the Front Panel")

②, ③

Remove the spacer from the CD ASSY.


FM/AM TUNER MODULE
Spacer
③
Pull Out
19P EEC/30V
② Remove

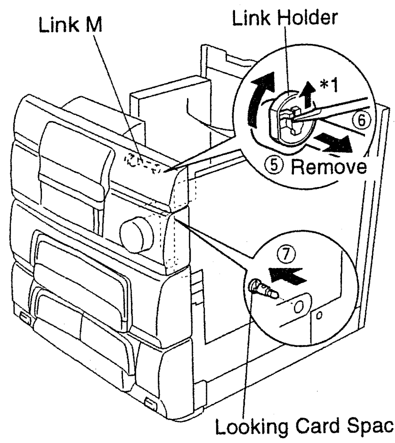
④ Remove the rear panel (screw ④ x 8).


Screw ④
Screw ④
Screw ④
Screw ④
Rear Panel

⑤ Remove the link holder (*1) that fexes link M in place.

⑥ Remove the link M.

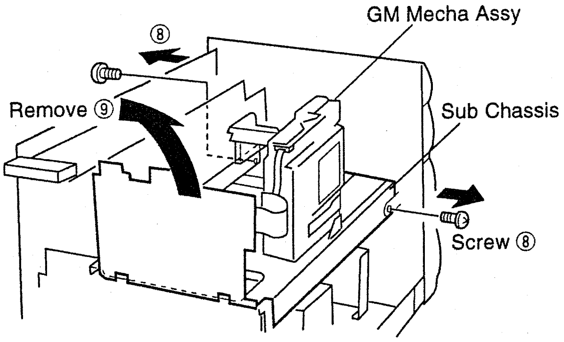
⑦ Remove the Looking card spacer.


Link M
Link Holder
*1
⑥
⑤ Remove
⑦
Looking Card Spacer

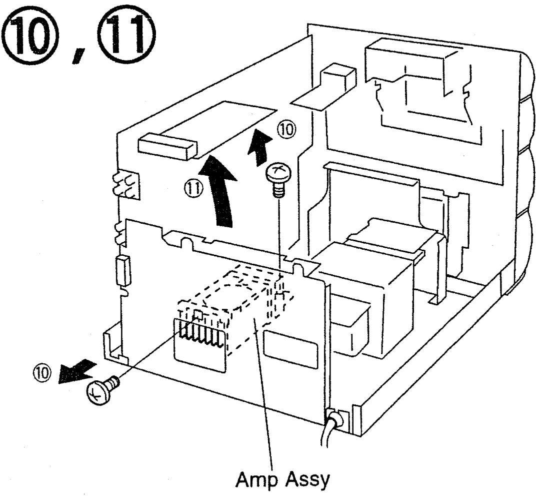
*Note *1: When removing the link holder, be careful not to press hard on the link holder hook, for this may cause the hook to break.*

⑧ , ⑨

Remove screw ⑧ and remove the sub chassis together with the GM Mecha ASSY.


GM Mecha Assy
⑧
Remove ⑨
Sub Chassis
Screw ⑧

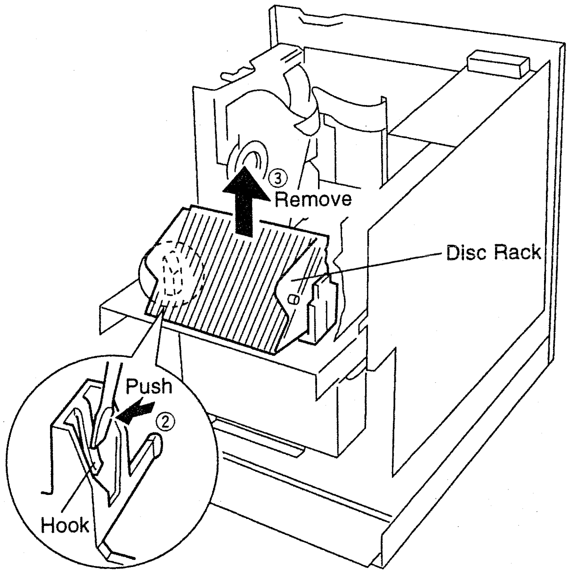
⑩ , ⑪


⑩
⑪
⑩
Amp Assy

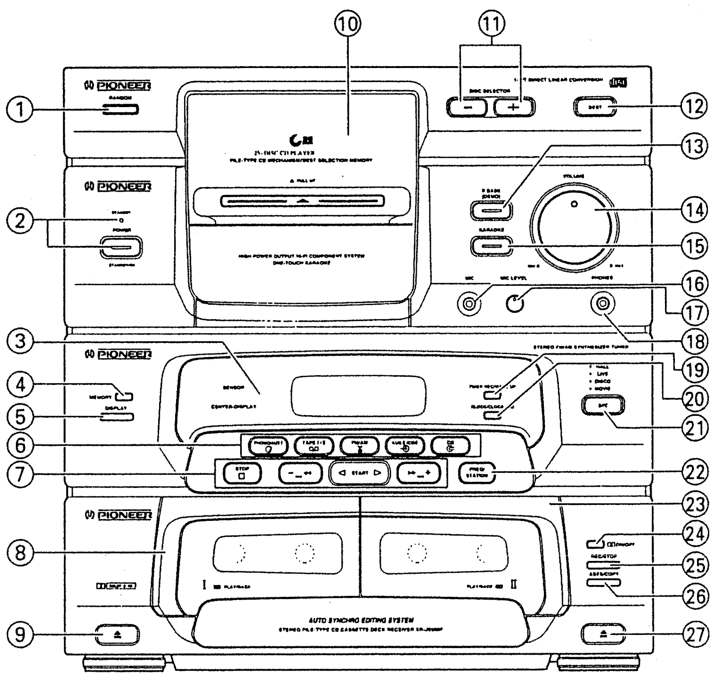
■ REMOVING THE DISC RACK

① Remove the front panel.

② , ③


③
Remove
Disc Rack
Push
②
Hook

10. PANEL FACILITIES



① RANDOM button

② POWER STANDBY/ON switch and STANDBY indicator

This is the switch for electric power.

ON : When set to the ON position, power is supplied and the unit becomes operational.

STANDBY : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. (The STANDBY indicator lights.)

③ Remote sensor (SENSOR)

④ MEMORY button

⑤ DISPLAY button

⑥ Function buttons

⑦ Common operation button section

⑧ TAPE I cassette door

⑨ TAPE I Eject button (⏏)

⑩ Hood

⑪ DISC SELECTOR button (–, +)

⑫ BEST button

⑬ P.BASS (DEMO) button

⑭ VOLUME control

⑮ KARAOKE button

NOTE:

If KARAOKE is selected, the center vocal part is muted and the instrumental accompaniment (backup) is played.

⑯ Microphone jack (MIC)

⑰ Microphone level (MIC LEVEL)

⑱ Headphones jack (PHONES)

⑲ TIMER REC/WAKE-UP button

⑳ CLOCK/CLOCK ADJ button

㉑ SFC button

Each time this button is pressed, the mode changes in the following sequence:

→ HALL → LIVE → DISCO
off ← MOVIE ←

㉒ FREQ/STATION button

㉓ TAPE II cassette door

㉔ Dolby* NR ON/OFF button

Each time this button is pressed, the Dolby NR system turns on and off.

㉕ REC/STOP button

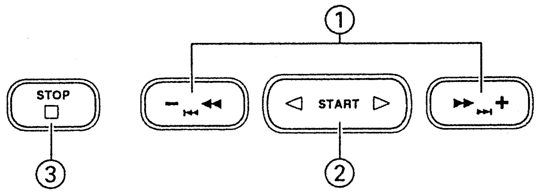
㉖ ASES/COPY button

㉗ TAPE II Eject button (⏏)

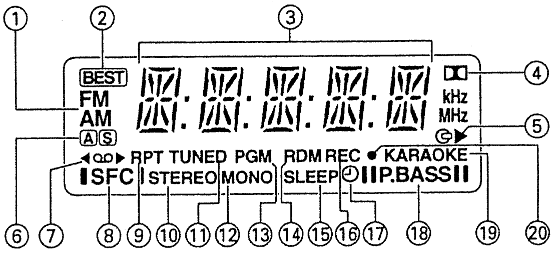
*

- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

Common operation button section



Display



① (−◂◂), (▸▸+) buttons

② START button (◄ ►)

③ STOP button (■)

- Roles of the common operation buttons (The roles of the buttons vary depending on the input functions as shown below.)

During CD input
START : Play/pause button
STOP : Stop button
(▸▸+) : Fast forward/track search button
(−◂◂) : Fast reverse/track search button

During cassette deck input
START : Play button/Tape transport direction
STOP : Stop button
(▸▸+) : Fast forward button
(−◂◂) : Rewind button

During tuner operation
(▸▸+) : Frequency Up button
(−◂◂) : Frequency Down button

① Indicates the band AM or FM.

② Flashes during Best Selection setting, and lights during BEST (Selection memory) play.

③ Indicates frequency and major operation status.

④ Lights when Dolby NR is ON.

⑤ Lights during CD play.
(Flashes in pause mode.)

⑥ S : Lights during SINGLE mode operation.
A : Lights during ALL mode operation.

⑦ Lights to show TAPE II tape direction.

⑧ Lights during SFC mode operation.

⑨ RPT : Lights during repeat play.

⑩ Lights during FM stereo reception.

⑪ Lights during radio broadcast reception.

⑫ Lights when you press the MONO button.

⑬ Lights when you press the PGM button.

⑭ Lights when you press the RANDOM button.

⑮ Lights during sleep timer operation.

⑯ Lights during recording and recording timer operation.

⑰ Lights when you setting the timer.

⑱ Lights when you press the P.BASS button.

⑲ Lights during KARAOKE mode operation

⑳ Lights when setting the Beat Cut function.

11. SPECIFICATIONS

■ STEREO FILE-TYPE CD CASSETTE DECK RECEIVER: XR-J2500F

Amplifier Section

(U.S. and Canadian models)

Continuous average power output is 50 watts* per channel, min., at 8 ohms from 60 Hz to 15,000 Hz with no more than 1.0 % total harmonic distortion.**

FM Tuner Section

Reception frequencies	87.5 MHz to 108 MHz
Antenna input	75 Ω unbalanced

AM Tuner Section

Reception frequencies	530 kHz to 1,700 kHz (10 kHz step)
Antenna	Loop antenna (included)

Double Cassette Deck Section

System type	4-track, 2-channel stereo
Heads	Recording/playback head x 1 Playback head x 1 Erasing head x 1
Motor	DC servo motor x 1
Frequency response	
Type I (Normal) tape	*35 Hz to 14,000 Hz ±6 dB (recorded at −20 dB)
SN ratio	*56 dB (peak recording level, audible compensation)
Dolby B type NR on	10 dB compensation at 5 kHz

* Values measured in accordance with EIAJ standards.

■ FILE TYPE CD PLAYER

Type	Compact disc audio system
Usable discs	Compact audio discs
Channels	2 channels (stereo)
Program steps	32 steps maximum

■ ELECTRICAL REQUIREMENTS, ETC.

Power Requirements	
U.S., Canadian models	AC 120 V, 60 Hz
Power Consumption	
U.S. model	160 W
Canadian model	160 W
External dimensions	360 (W) x 376.5 (H) x 369 (D) mm 14-3/16 (W) x 14-13/16 (H) x 14-1/2 (D) in.
Weight	10.5 kg (23 lb 3 oz)

■ ACCESSORIES

Operating Instructions	1
FM antenna	1
AM loop antenna	1
Remote control unit	1
AA/R6 dry cell batteries	2
CD case stand	1

NOTE:

Specifications and design are subject to possible modifications without notice, due to improvements.

* Measured pursuant to the Federal Trade Commissions's. Trade Regulation rule on Power Output Claims for Amplifier.

** Measured by audio spectrum analyzer.

PIONEER®
The Art of Entertainment

PION-05101

Service Manual

ORDER NO.
RRV1621

STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

XR-J2500F

- **Refer to the service manual RRV1549 for XR-J2500F.**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	XR-J2500F		
NVXJ	O	AC230V	———
MYIXJ	O	AC220 – 230V	———
MYXJ/EA	O	AC220 – 230V	———
MYXJ/EB	O	AC220 – 230V	———
YPWXJ	O	AC240V	———
DDXJ	O	AC110 – 127V/220 – 230V/240V	With the voltage selector
DDXJ/NC	O	AC110 – 127V/220 – 230V/240V	With the voltage selector

CONTENTS

1. SAFETY INFORMATION 2
2. CONTRAST OF MISCELLANEOUS PARTS 3
3. SCHEMATIC AND PCB CONNECTION DIAGRAMS 7
4. ADJUSTMENTS 23

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PIONEER ELECTRONICS SERVICE, INC. P.O.Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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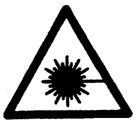
T-FFY MAY. 1996

1. SAFETY INFORMATION

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

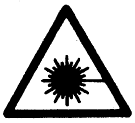


LASER
Kuva 1
Lasersateilyn
varoitusmerkki

WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

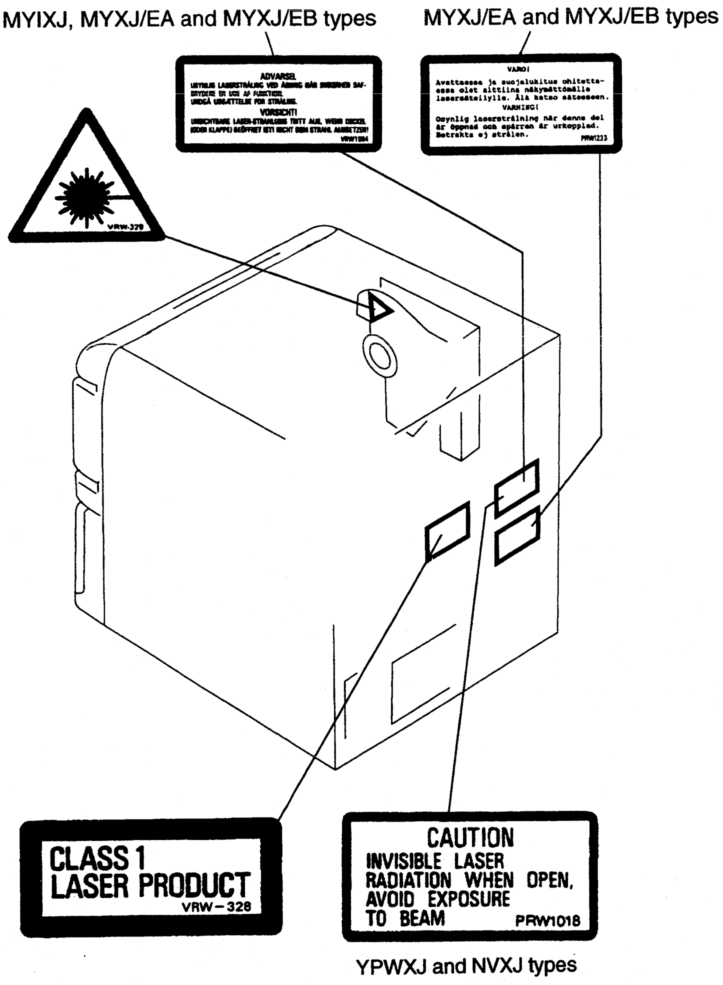
IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm



LASER
Picture 1
Warning sign for
laser radiation

LABEL CHECK (for NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB and YPWXJ types)


MYIXJ, MYXJ/EA and MYXJ/EB types
MYXJ/EA and MYXJ/EB types
ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAF-BRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094
VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233
VRW-329
CLASS 1
LASER PRODUCT
VRW-328
CAUTION
INVISIBLE LASER
RADIATION WHEN OPEN,
AVOID EXPOSURE
TO BEAM
PRW1018
YPWXJ and NVXJ types

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S601) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S601) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level).
   Thus, the interlock will no longer function if the switch (S601) is deliberatery set to $\overline{\text{CLMP}}$ terminal side. (low level)
   The interlock also does not function in the test mode ✱. Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).
2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

✱ *: Refer to page 52 in the service manual RR1549.*

2. CONTRAST OF MISCELLANEOUS PATS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

$560\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ .... RD1/4PU$\boxed{5}\boxed{6}\boxed{1}$J

$47k\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ .... RD1/4PU$\boxed{4}\boxed{7}\boxed{3}$J

$0.5\Omega \rightarrow$ 0R5 .... RN2H$\boxed{0}\boxed{R}\boxed{5}$K

$1\Omega \rightarrow$ 1R0 .... RS1P$\boxed{1}\boxed{R}\boxed{0}$K

Ex.2 *When there are 3 effective digits (such as in high precision metal film resistors).*

$5.62k\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

■ CONTRAST OF NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB, YPWXJ, DDXJ AND DDXJ/NC TYPES

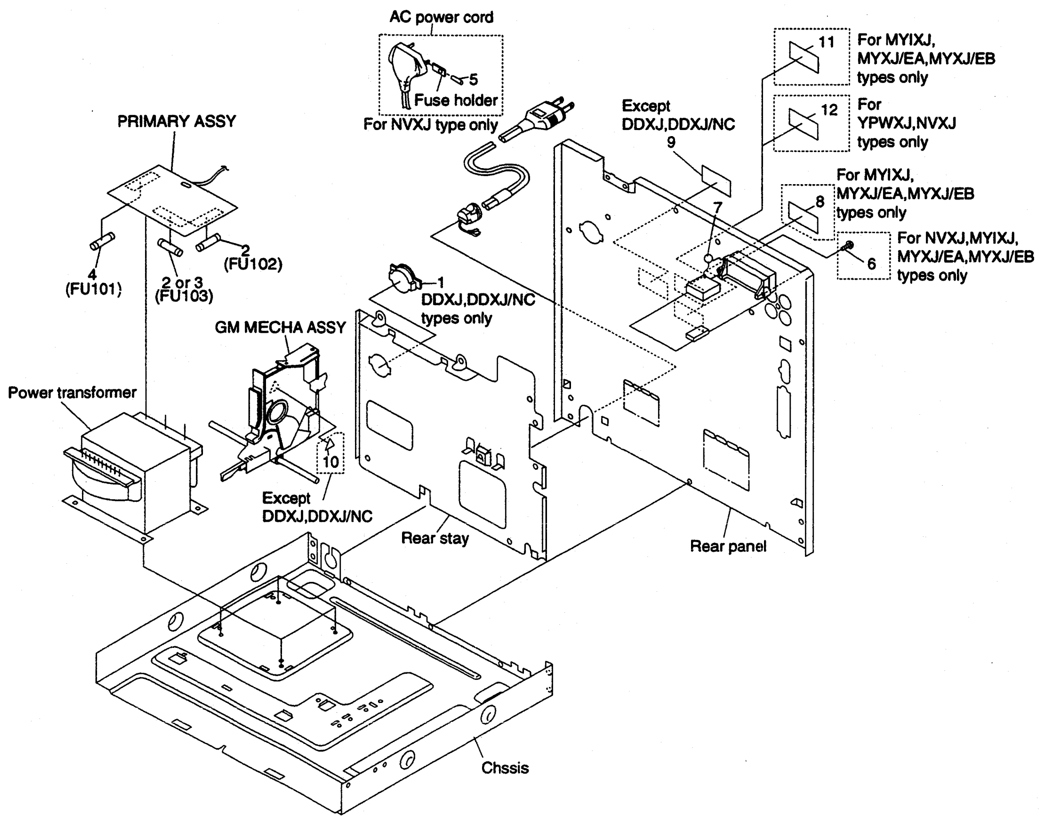
NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB, YPWXJ, DDXJ, DDXJ/NC and KUXJ types have the same construction except for the following:

Mark	Symbol & Description	Part No.								Remarks
		KUXJ TYPE	NVXJ TYPE	MYIXJ TYPE	MYXJ/EA TYPE	MYXJ/EB TYPE	YPWXJ TYPE	DDXJ TYPE	DDXJ/NC TYPE	
	AF Assy	AWZ8236	AWZ8237	AWZ8237	AWZ8237	AWZ8237	AWZ8238	AWZ8238	AWZ8238	
	AMP Assy	AWZ8243	AWZ8244	AWZ8244	AWZ8244	AWZ8244	AWZ8245	AWZ8245	AWZ8245	
NSP	SECONDARY Assy	AWZ8259	AWZ8260	AWZ8260	AWZ8260	AWZ8260	AWZ8261	AWZ8261	AWZ8261	✱1
NSP	PRIMARY Assy	AWZ8252	AWZ8253	AWZ8253	AWZ8253	AWZ8253	AWZ8377	AWZ8254	AWZ8254	
	GM – CD Assy	AWZ8267	AWZ8268	AWZ8268	AWZ8268	AWZ8268	AWZ8269	AWZ8269	AWZ8269	✱2
	VR Assy	AWZ8274	AWZ8275	AWZ8275	AWZ8275	AWZ8275	AWZ8276	AWZ8276	AWZ8276	✱3
	FRONT Assy	AWZ8281	AWZ8282	AWZ8282	AWZ8282	AWZ8282	AWZ8283	AWZ8283	AWZ8283	
	FM/AM TUNER MODULE	AXQ3112	AXQ3114	AXQ3114	AXQ3114	AXQ3114	AXQ3112	AXQ3112	AXQ3112	
⚠	AC power cord	PDG1057	PDG1055	PDG1058	PDG1058	PDG1058	ADG1159	ADG1157	ADG1157	
⚠	Voltage Selector (AC110 – 127V/220 – 230V/240V)	Not used	Not used	Not used	Not used	Not used	Not used	AKX7002	AKX7002	✱4. No.1
⚠	Power Transformer (AC120V)	ATS7099	Not used	Not used	Not used	Not used	Not used	Not used	Not used	
⚠	Power Transformer (AC240V)	Not used	Not used	Not used	Not used	Not used	ATS7123	Not used	Not used	
⚠	Power Transformer (AC220 – 230V)	Not used	ATS7103	ATS7103	ATS7103	ATS7103	Not used	Not used	Not used	
⚠	Power Transformer (AC110 – 127V/220 – 230V/240V)	Not used	Not used	Not used	Not used	Not used	Not used	ATS7104	ATS7104	
⚠	Fuse (T1.25A, FU102, FU103)	Not used	Not used	Not used	Not used	Not used	Not used	AEK1055	AEK1055	✱4. No.2
⚠	Fuse (T1.25A, FU103)	Not used	Not used	Not used	Not used	Not used	AEK1055	Not used	Not used	✱4. No.3
⚠	Fuse (T1.25A, FU101)	Not used	AEK1055	AEK1055	AEK1055	AEK1055	Not used	Not used	Not used	✱4. No.4
⚠	Fuse (4A, FU101)	REK1082	Not used	Not used	Not used	Not used	Not used	Not used	Not used	✱4. No.4
⚠	Fuse (T5A) (For AC Power cord)	Not used	PEK1003	Not used	Not used	Not used	Not used	Not used	Not used	✱4. No.5
⚠	Strain relief	CM – 22C	CM – 22B	CM – 22B	CM – 22B	CM – 22B	CM – 22B	CN – 22B	CN – 22B	
	Rear Panel	ANC7313	ANC7379	ANC7372	ANC7366	ANC7366	ANC7365	ANC7363	ANC7364	
	Screw	Not used	ABA1047	ABA1047	ABA1047	ABA1047	Not used	Not used	Not used	✱4. No.6
	C1 Ceramic capacitor	Not used	CKDYB102K50	CKDYB102K50	CKDYB102K50	CKDYB102K50	Not used	Not used	Not used	✱4. No.7
	Caution label (HE)	Not used	Not used	Not used	PRW1233	PRW1233	Not used	Not used	Not used	✱4. No.8
	Caution label (F)	Not used	VRW – 328	VRW – 328	VRW – 328	VRW – 328	VRW – 328	Not used	Not used	✱4. No.9
	Caution label (G)	Not used	VRW – 329	VRW – 329	VRW – 329	VRW – 329	VRW – 329	Not used	Not used	✱4. No.10
	Caution label	Not used	Not used	VRW1094	VRW1094	VRW1094	Not used	Not used	Not used	✱4. No.11
	Caution label	Not used	PRW1018	Not used	Not used	Not used	PRW1018	Not used	Not used	✱4. No.12
	65 Label	ORW1069	Not used	Not used	Not used	Not used	Not used	Not used	Not used	
	Packing Case	AHD7239	AHD7259	AHD7259	AHD7259	AHD7259	AHD7258	AHD7256	AHD7257	
	Polyethyline Bag	AHG7030	AHG7032	AHG7032	AHG7032	AHG7032	AHG7032	AHG7032	AHG7032	
	Caution 220V Label	Not used	Not used	Not used	Not used	Not used	Not used	ARR7008	ARR7008	✱4. No.13
	Rear Spacer	Not used	AHA7130	Not used	Not used	Not used	Not used	Not used	Not used	✱4. No.14
	FM Antenna	ADH1017	ADH1019	ADH1019	ADH1019	ADH1019	ADH1017	ADH1017	ADH1017	
	Operating Instructions (English)	ARB7084	ARB7084	Not used	Not used	ARB7084	ARB7084	Not used	Not used	
	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	Not used	Not used	ARE7084	ARE7084	
	Operating Instructions (German/Italian/French/Dutch)	Not used	Not used	Not used	ARC7098	Not used	Not used	Not used	Not used	
	Operating Instructions (German/Italian)	Not used	Not used	ARC7099	ARC7099	Not used	Not used	Not used	Not used	
	Operating Instructions (French/Swedish/Spanish/Portuguese)	Not used	Not used	Not used	Not used	ARC7127	Not used	Not used	Not used	

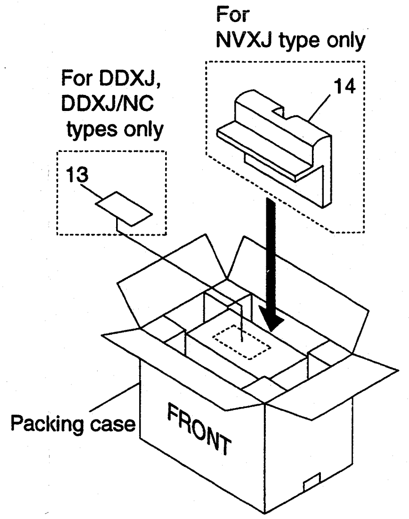
Note ✱1 : Although AWZ8260,AWZ8261 and AWZ8259 are different in part number they consist of the same components.
✱2 : Although AWZ8268,AWZ8269 and AWZ8267 are different in part number they consist of the same components.
✱3 : Although AWZ8275,AWZ8276 and AWZ8274 are different in part number they consist of the same components.
✱4 : The numbers in the remarks column correspond to the numbers on the exploded views.

■ EXPLODED VIEWS

Exterior section



Packing section



■ CONTRAST OF PCB ASSEMBLIES

AF ASSY

AWZ8237, AWZ8238 and AWZ8236 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ8236	AWZ8237	AWZ8238	
	C1006 (0.01μF/150V)	ACG1005	Not used	ACG1005	
⚠	C1007, C1008	ACH7006(3300μF/56V)	CEAS222M35	CEAS222M35	
	C2001, C2002	Not used	CCSQCH101J50	Not used	*
	C2017, C2018	Not used	CCSQCH471J50	Not used	*
	C2044, C2045, C2107, C2108	Not used	CKSQYB102K50	Not used	*
	C2046, C4109, C4110, C4211, C4212	Not used	CCSQCH470J50	Not used	*
	C2105, C2106, C2109 – C2112	Not used	CKSQYF104Z50	Not used	*
	C2114	CKSQYB221K50	Not used	CKSQYB221K50	
	C2115, C2116	Not used	CKSQYF103Z50	CKSQYB103K50	*
	C3012 – C3015	Not used	CCSQCH150J50	Not used	*
	C3017, C3018	CKSQYF104Z50	Not used	CKSQYF104Z50	
	C3019	Not used	Not used	CKSQYB272K50	*
	C3201	Not used	CKSQYF104Z50	CKSQYF104Z50	*
	J3001	DB020ND0	Not used	DB020ND0	
	J3002	DB925ND0	Not used	DB925ND0	
	L3201	Not used	LAU221J	LAU221J	*
	R2015	RS1/10S153J	RS1/10S752J	RS1/10S752J	
	R2019	RS1/10S331J	RS1/10S132J	RS1/10S331J	
	R2107, R2108	Not used	RD1/4PM100J	Not used	*
	R2201, R2202	RS1/10S223J	RS1/10S183J	RS1/10S183J	
	R3046	RS1/10S000J	RS1/10S101J	RS1/10S000J	

Note ✱ : Refer to SCH-3F and SCH-4F.

AMP ASSY

AWZ8244, AWZ8245 and AWZ8243 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ8243	AWZ8244	AWZ8245	
	C305, C306	Not used	CCSQCH470J50	Not used	*
⚠	IC301	STK4192 – 2GP	STK4162 – 2GP	STK4162 – 2GP	
	R311 – R314	RD1/2PM332J	RD1/2PM222J	RD1/2PM222J	

Note ✱ : Refer to SCH-4F.

PRIMARY ASSY

AWZ8253, AWZ8377, AWZ8254 and AWZ8252 have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		AWZ8252	AWZ8253	AWZ8377	AWZ8254	
⚠	C101, C102 (0.01μF)	Not used	ACG7005	Not used	Not used	*
⚠	L101	Not used	ATF – 151	Not used	Not used	*
⚠	R101 (2.2MΩ, 1/2W)	ACN – 208	Not used	Not used	Not used	

Note ✱ : Refer to SCH-4F.

FRONT ASSY

AWZ8282, AWZ8283 and AWZ8281 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ8281	AWZ8282	AWZ8283	
	C515, C522	Not used	CKSQYB472K50	Not used	*
	C516, C517, C591, C592	Not used	CCSQCH101J50	Not used	*
	C593	CKSQYB272K50	Not used	CKSQYB272K50	
	C595, C596	Not used	CKSQYB102K50	Not used	*
	D501	1SS254	Not used	Not used	
	D502	Not used	1SS254	Not used	*
	L501	LAU5R6J	Not used	LAU5R6J	

Note ✱ : Refer to SCH-2F.

■ PCB PARTS LIST

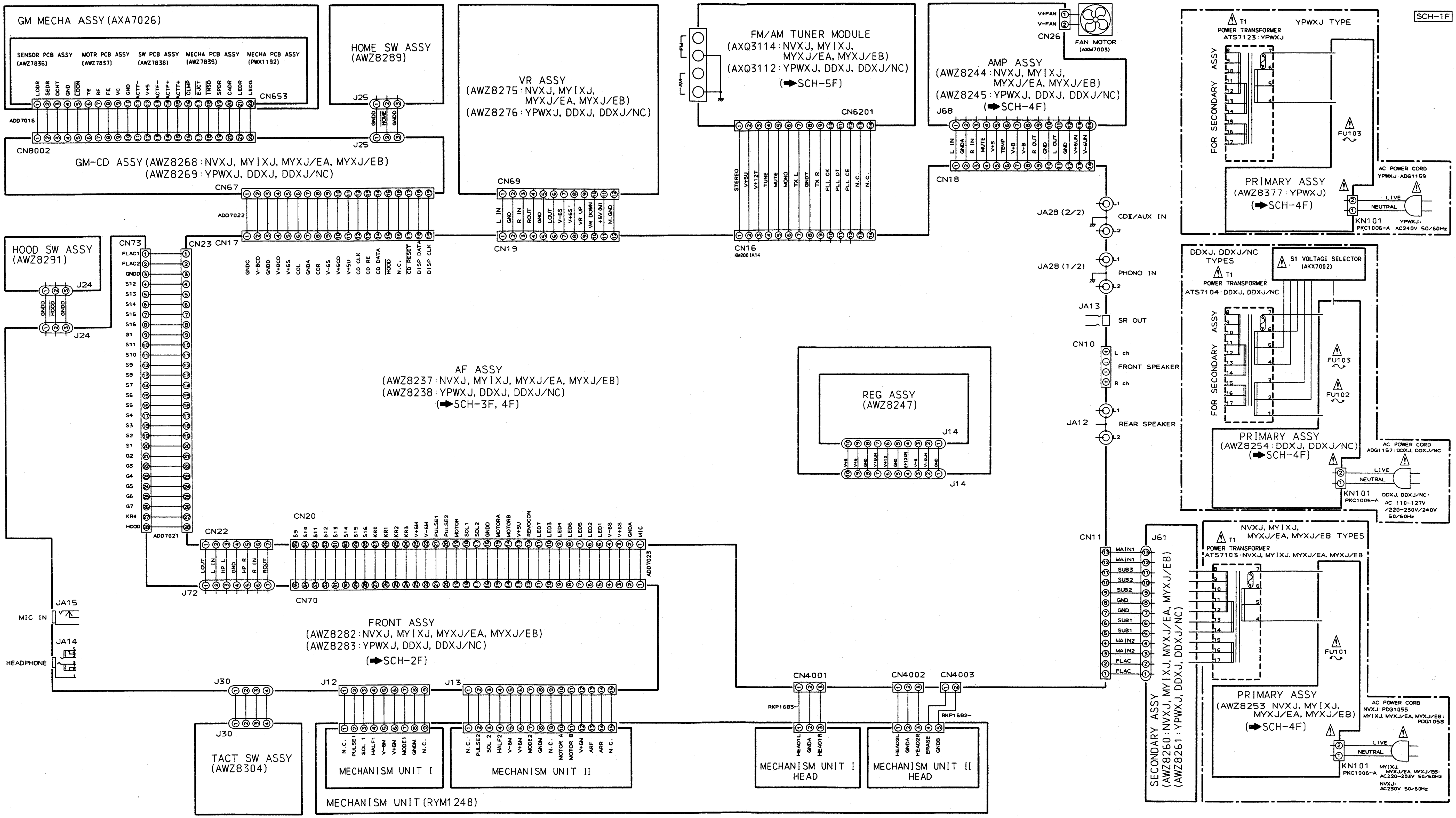
FM/AM TUNER MODULE (AXQ3114)

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202, Q6218		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104, Q6105		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6217		XDC124EK
	D6101 – D6104		1SV228
	COILS AND FILTERS		
	L6106		ATC1003
	L6105		ATC1015
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019
	T6101		ATE – 063
	L6207		ATE1013
	F6204		ATF – 107
	F6203		ATF – 119
	F6205		ATF1152
	F6202		ATF1155
	L6107	(2.2μH)	ATH1043
	L6202, L6203, L6208		LCTA2R2J3225
	L6205		LCTA680J3225
	CAPACITORS		
	C6204, C6234, C6236, C6269	(1μF/16V)	ACG1051
	C6120		CCSCH060D50
	C6229		CCSCH102J50
	C6111, C6122		CCSQCH010C50
	C6112		CCSQCH020C50
	C6118		CCSQCH080D50
	C6113		CCSQCH101J50
	C6116, C6208, C6221, C6222		CCSQCH150J50
	C6117		CCSQCH330J50
	C6272		CCSQSL390J50
	C6105		CCSQSL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6109		CCSQTH270J50
	C6107, C6110		CCSQTH300J50
	C6106		CCSQTH330J50
	C6261		CEAS010M50
	C6224, C6231, C6233, C6246, C6262		CEAS100M50
	C6227		CEAS101M10
	C6216, C6217		CEAS330M16

Mark	No.	Description	Parts No.
	C6219		CEAS470M10
	C6243 – C6245		CEAS470M16
	C6238, C6248		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6115, C6125, C6126, C6207		CKSQYB102K50
	C6102, C6114, C6121, C6124, C6210		CKSQYB103K50
	C6264		CKSQYB103K50
	C6247		CKSQYB122K50
	C6213		CKSQYB223K50
	C6230		CKSQYB273K50
	C6228		CKSQYB472K50
	C6209, C6237, C6267		CKSQYB473K50
	C6251, C6252		CKSQYB562K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242		CKSQYF223Z50
	C6255, C6256		CKSQYF223Z50
	C6235		CKSQYF224Z25
	C6225, C6241		CKSQYF473Z50
	C6123		CKSYB103K50
	C6232		CKSYB273K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50
	RESISTORS		
	R6299, R6300		RD1/4PU102J
	R6115, R6119, R6123, R6127, R6129		RS1/8S000J
	R6268 – R6271, R6275, R6276, R6278		RS1/8S000J
	R6283, R6284, R6293, R6294, R6297		RS1/8S000J
	R6302, R6303		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211, R6239		RS1/8S103J
	R6237		RS1/8S122J
	R6209		RS1/8S221J
	R6112		RS1/8S473J
	VR6201	(10kΩ, 0.1W)	ACP1056
	VR6202		VRTB6VS223
		Other Resistors	RS1/10S□□□J
	OTHERS		
	BN6201	2P TERMINAL WITH PAL	AKA1017
	X6203	CRYSTAL RESONATOR	ASS1042
	X6201	CRYSTAL RESONATOR	ASS1066
	X6202	CERAMIC RESONATOR	ATF1027
	8001	AM RF TUNING BLOCK	AXX1025
	CN6201	14P SOCKET	KP200IA14L

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

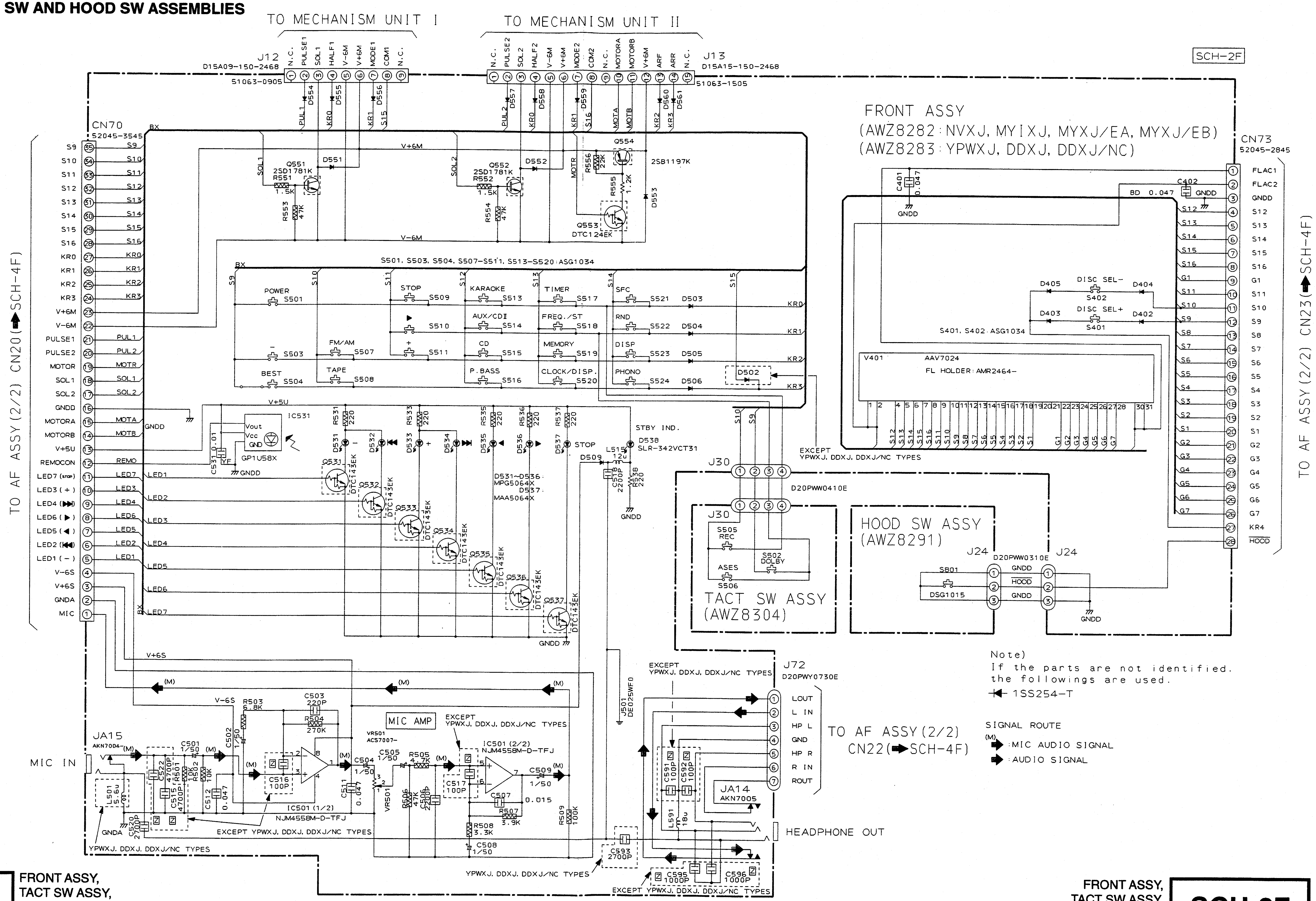
3.1 OVERALL SCHEMATIC DIAGRAM


GM MECHA ASSY (AXA7026)
SENSOR PCB ASSY (AWZ7836)
MOTR PCB ASSY (AWZ7837)
SW PCB ASSY (AWZ7838)
MECHA PCB ASSY (AWZ7835)
MECHA PCB ASSY (PWX1192)
CN653
ADD7016
CN8002
GM-CD ASSY (AWZ8268 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8269 : YPWXJ, DDXJ, DDXJ/NC)
HOME SW ASSY (AWZ8289)
J25
VR ASSY
(AWZ8275 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8276 : YPWXJ, DDXJ, DDXJ/NC)
CN69
CN19
CN67
CN17
ADD7022
FM/AM TUNER MODULE
(AXQ3114 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AXQ3112 : YPWXJ, DDXJ, DDXJ/NC)
(➡SCH-5F)
CN6201
CN16
AMP ASSY
(AWZ8244 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8245 : YPWXJ, DDXJ, DDXJ/NC)
(➡SCH-4F)
J68
CN18
CN26
FAN MOTOR (AXM7003)
JA28 (2/2)
CDⅡ/AUX IN
JA28 (1/2)
PHONO IN
JA13
SR OUT
CN10
FRONT SPEAKER
JA12
REAR SPEAKER
CN11
J61
HOOD SW ASSY (AWZ8291)
J24
CN73
CN23
AF ASSY
(AWZ8237 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8238 : YPWXJ, DDXJ, DDXJ/NC)
(➡SCH-3F, 4F)
REG ASSY (AWZ8247)
J14
CN22
CN20
ADD7021
ADD7023
J72
CN70
FRONT ASSY
(AWZ8282 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8283 : YPWXJ, DDXJ, DDXJ/NC)
(➡SCH-2F)
JA15
MIC IN
JA14
HEADPHONE
J30
J12
J13
TACT SW ASSY (AWZ8304)
MECHANISM UNIT Ⅰ
MECHANISM UNIT Ⅱ
MECHANISM UNIT (RYM1248)
CN4001
CN4002
CN4003
RKP1683-
RKP1682-
MECHANISM UNIT Ⅰ HEAD
MECHANISM UNIT Ⅱ HEAD
SCH-1F
T1 POWER TRANSFORMER ATS7123 : YPWXJ
YPWXJ TYPE
FOR SECONDARY ASSY
FU103
PRIMARY ASSY (AWZ8377 : YPWXJ) (➡SCH-4F)
AC POWER CORD YPWXJ : ADG1159
LIVE
NEUTRAL
KN101 PKC1006-A
YPWXJ : AC240V 50/60Hz
DDXJ, DDXJ/NC TYPES
S1 VOLTAGE SELECTOR (AKX7002)
T1 POWER TRANSFORMER ATS7104 : DDXJ, DDXJ/NC
FU102
PRIMARY ASSY (AWZ8254 : DDXJ, DDXJ/NC) (➡SCH-4F)
AC POWER CORD ADG1157 : DDXJ, DDXJ/NC
DDXJ, DDXJ/NC : AC 110-127V /220-230V/240V 50/60Hz
NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB TYPES
T1 POWER TRANSFORMER ATS7103 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB
FU101
SECONDARY ASSY
(AWZ8260 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8261 : YPWXJ, DDXJ, DDXJ/NC)
PRIMARY ASSY (AWZ8253 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB) (➡SCH-4F)
AC POWER CORD NVXJ : PDG1055 MYIXJ, MYXJ/EA, MYXJ/EB : PDG1058
MYIXJ, MYXJ/EA, MYXJ/EB : AC220-230V 50/60Hz
NVXJ : AC230V 50/60Hz

SCH-1F OVERALL SCHEMATIC DIAGRAM

OVERALL SCHEMATIC DIAGRAM **SCH-1F**

3.2 FRONT, TACT SW AND HOOD SW ASSEMBLIES


TO MECHANISM UNIT I
TO MECHANISM UNIT II
J12
D15A09-150-2468
51063-0905
N.C. PULSE1 SOL1 HALF1 V-6M V+6M MODE1 COM1 N.C.
J13
D15A15-150-2468
51063-1505
N.C. PULSE2 SOL2 HALF2 V-6M V+6M MODE2 COM2 N.C. MOTORA MOTORB V+6M ARF ARR N.C.
SCH-2F
CN70
52045-3545
S9 S10 S11 S12 S13 S14 S15 S16 KR0 KR1 KR2 KR3 V+6M V-6M PULSE1 PULSE2 MOTOR SOL1 SOL2 GNDD MOTORA MOTORB V+5U REMOCON LED7 (STOP) LED3 (+) LED4 (▶▶|) LED6 (▶) LED5 (◀) LED2 (|◀◀) LED1 (-) V-6S V+6S GNDA MIC
TO AF ASSY (2/2) CN20 (➡SCH-4F)
Q551 2SD1781K
Q552 2SD1781K
Q553 DTC124EK
Q554 2SB1197K
R551 1.5K
R552 1.5K
R553 47K
R554 47K
R555 1.2K
R556 22K
D551 D552 D553 D554 D555 D556 D557 D558 D559 D560 D561
S501, S503, S504, S507–S511, S513–S520 : ASG1034
POWER S501
STOP S509
KARAOKE S513
TIMER S517
SFC S521 D503
▶ S510
AUX/CDI S514
FREQ./ST S518
RND S522 D504
FM/AM S507
+ S511
CD S515
MEMORY S519
DISP S523 D505
– S503
BEST S504
TAPE S508
P.BASS S516
CLOCK/DISP. S520
PHONO S524 D506
D502
IC531 GP1U58X
Vout Vcc GND
C531 0.01
R531 220
R533 220
R535 220
R536 220
R537 220
D531 D532 D533 D534 D535 D536 D537
Q531 DTC143EK
Q532 DTC143EK
Q533 DTC143EK
Q534 DTC143EK
Q535 DTC143EK
Q536 DTC143EK
Q537 DTC143EK
D531–D536 : MPG5064X
D537 : MAA5064X
STBY IND.
D538 SLR-342VCT31
L515 12μ
C515 2200P
R538 220
D509
FRONT ASSY
(AWZ8282 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8283 : YPWXJ, DDXJ, DDXJ/NC)
CN73
52045-2845
FLAC1 FLAC2 GNDD S12 S13 S14 S15 S16 G1 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 G2 G3 G4 G5 G6 G7 KR4 HOOD
TO AF ASSY (2/2) CN23 (➡SCH-4F)
C401 0.047
C402 BD 0.047
DISC SEL– S402
DISC SEL+ S401
D403 D404 D405 D402
S401, S402 : ASG1034
V401 AAV7024
FL HOLDER : AMR2464–
EXCEPT YPWXJ, DDXJ, DDXJ/NC TYPES
J30
D20PWW0410E
S505 REC
S502 DOLBY
ASES S506
TACT SW ASSY (AWZ8304)
HOOD SW ASSY (AWZ8291)
J24
D20PWW0310E
S801 DSG1015
GNDD HOOD GNDD
V+6S
V-6S
(M)
MIC AMP
JA15 AKN7004–
MIC IN
L501 5.6μ
C520 2700P
C522 4700P
C515 4700P
R501 1K
R502 1K
C501 1/50
C502 1/50
C512 0.047
R503 6.8K
R504 270K
C503 220P
C516 100P
IC501 (1/2) NJM4558M-D-TFJ
IC501 (2/2) NJM4558M-D-TFJ
C511 0.047
C504 1/50
VR501 ACS7007–
C505 1/50
R505 4.7K
R506 47K
C506 2200P
C517 100P
R507 3.9K
C507 0.015
R508 3.3K
C508 1/50
C509 1/50
R509 100K
J501 DE025WF0
EXCEPT YPWXJ, DDXJ, DDXJ/NC TYPES
YPWXJ, DDXJ, DDXJ/NC TYPES
C593 2700P
J72 D20PWY0730E
LOUT L IN HP L GND HP R R IN ROUT
TO AF ASSY (2/2) CN22 (➡SCH-4F)
C591 100P
C592 100P
JA14 AKN7005
L591 18μ
HEADPHONE OUT
C595 1000P
C596 1000P
Note)
If the parts are not identified, the followings are used.
1SS254-T
SIGNAL ROUTE
(M) : MIC AUDIO SIGNAL
: AUDIO SIGNAL

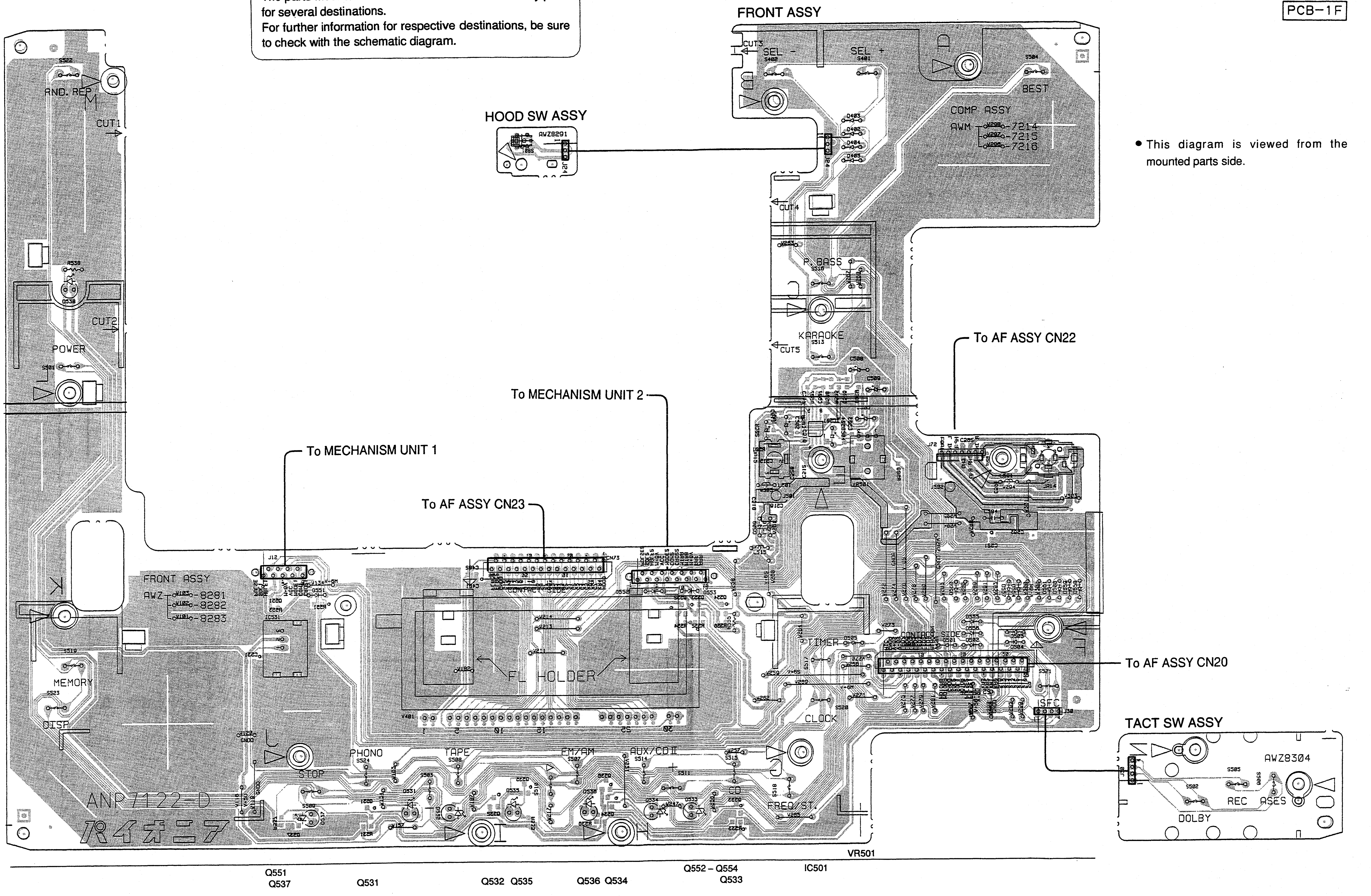
SCH-2F FRONT ASSY, TACT SW ASSY, HOOD SW ASSY

FRONT ASSY, TACT SW ASSY, HOOD SW ASSY **SCH-2F**

PCB−1F

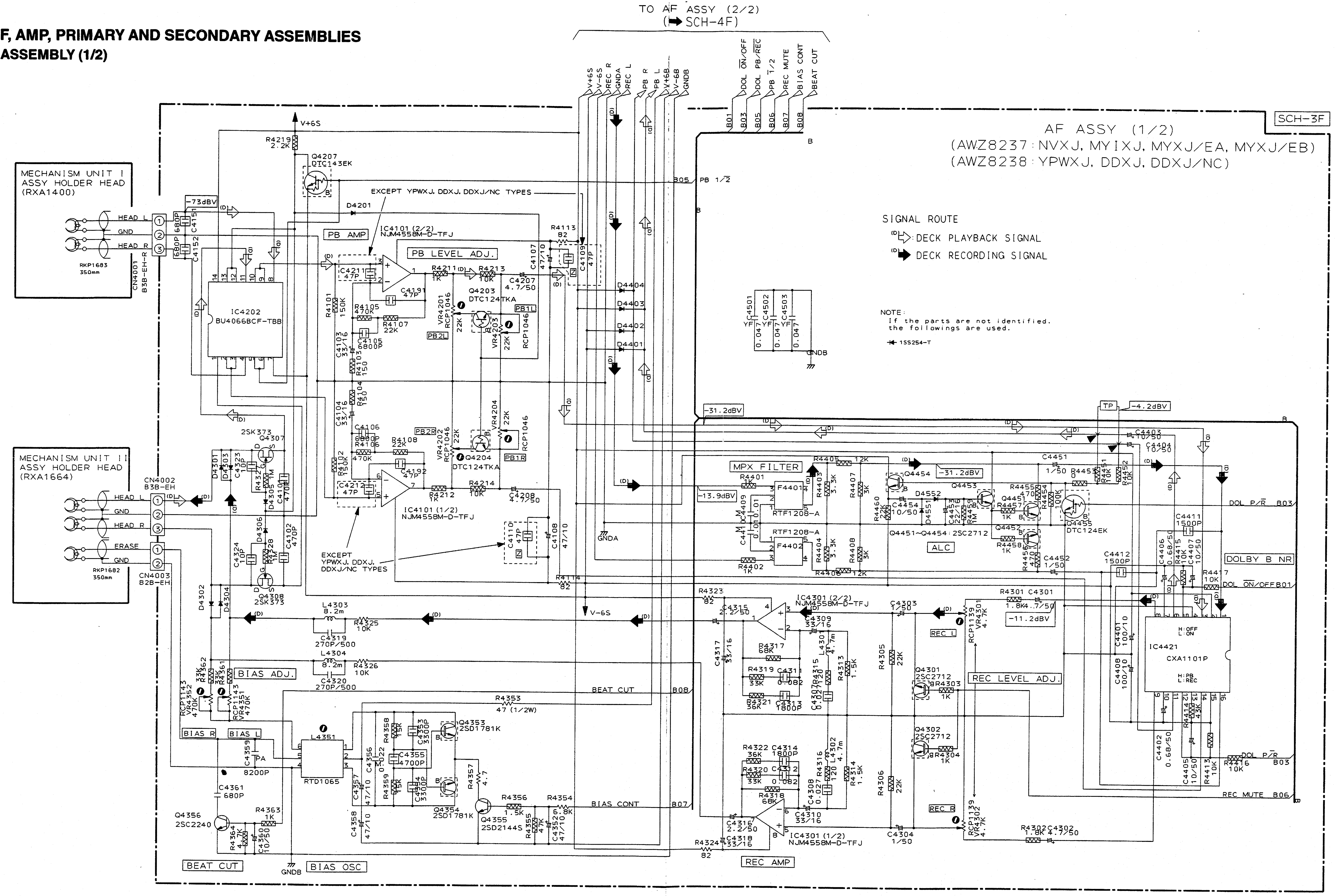
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.

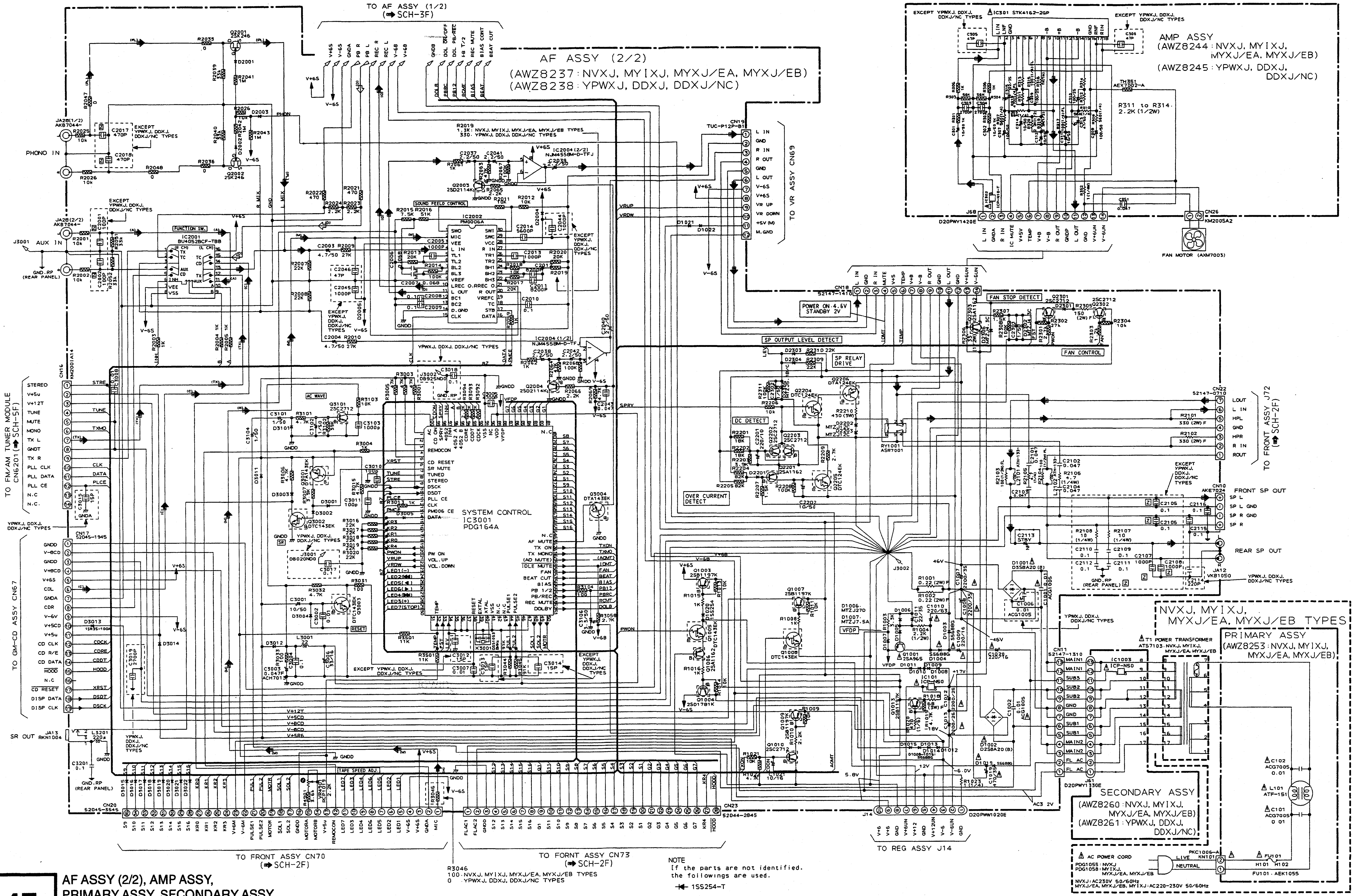

1
2
3
4
5
6
A
B
C
D
FRONT ASSY
HOOD SW ASSY
AWZ8291
J24
SEL −
S402
SEL +
S401
S504
BEST
COMP ASSY
AWM −7214
−7215
−7216
CUT1
CUT2
CUT3
CUT4
CUT5
RND. REP
S522
POWER
S501
P. BASS
S510
KARAOKE
S513
To AF ASSY CN22
To MECHANISM UNIT 2
To MECHANISM UNIT 1
To AF ASSY CN23
J12
CN73
FRONT ASSY
AWZ −8281
−8282
−8283
IC531
FL HOLDER
CONTACT SIDE
TIMER
CONTACT SIDE
To AF ASSY CN20
MEMORY
S519
DISP
S523
CLOCK
ISFC
J38
TACT SW ASSY
AWZ8304
S505
S502
REC
ASES
DOLBY
STOP
PHONO
S524
TAPE
S508
FM/AM
S507
AUX/CD II
S514
S515
CD
FREQ/ST.
ANP7122−D
パイオニア
VR501
Q551
Q537
Q531
Q532 Q535
Q536 Q534
Q552 − Q554
Q533
IC501

3.3 AF, AMP, PRIMARY AND SECONDARY ASSEMBLIES

● AF ASSEMBLY (1/2)

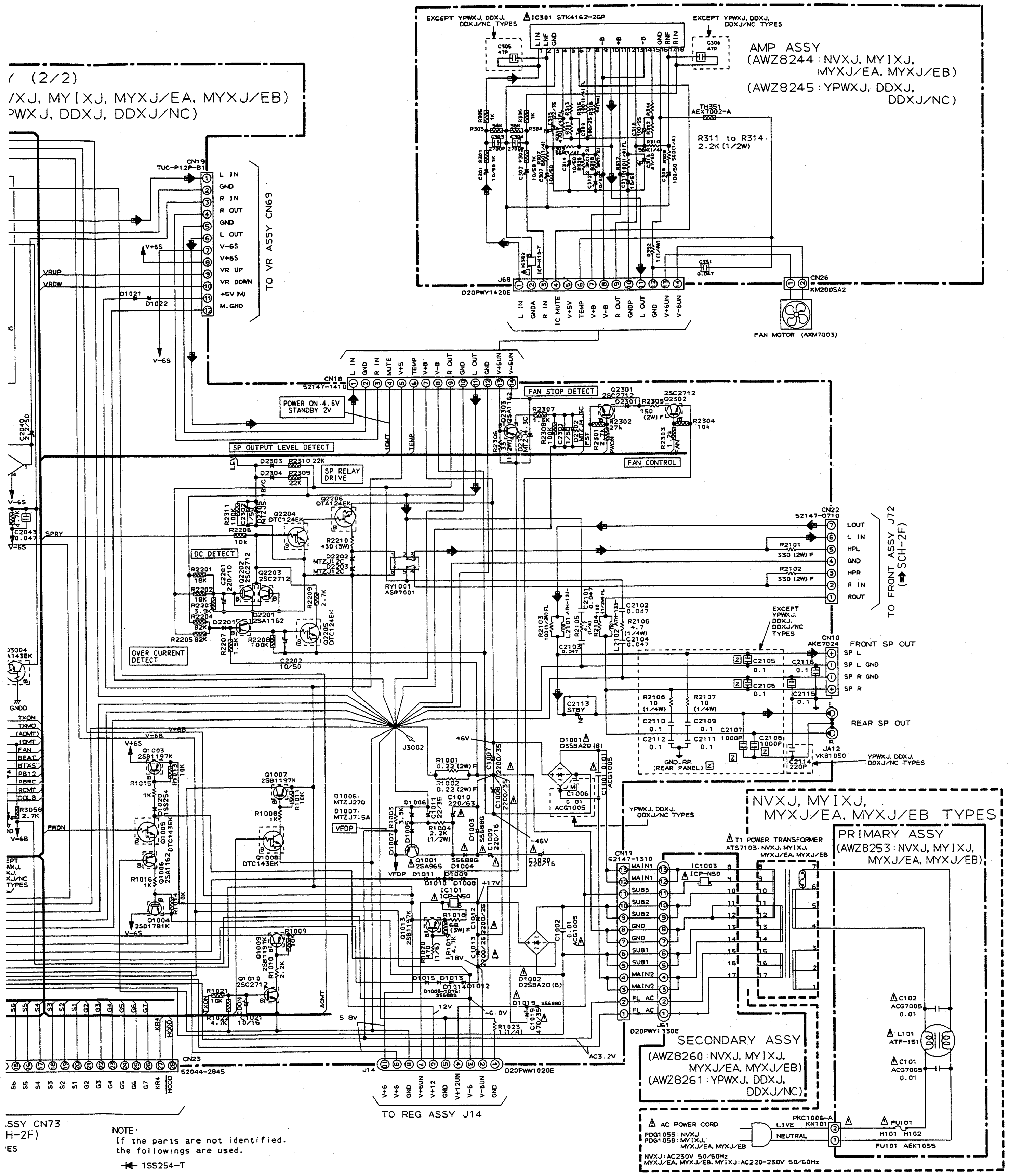

TO AF ASSY (2/2) (➡ SCH-4F)
AF ASSY (1/2)
(AWZ8237 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8238 : YPWXJ, DDXJ, DDXJ/NC)
SCH-3F
SIGNAL ROUTE
DECK PLAYBACK SIGNAL
DECK RECORDING SIGNAL
NOTE:
If the parts are not identified, the followings are used.
1SS254-T
MECHANISM UNIT I ASSY HOLDER HEAD (RXA1400)
MECHANISM UNIT II ASSY HOLDER HEAD (RXA1664)
HEAD L
GND
HEAD R
ERASE
RKP1683 350mm
RKP1682 350mm
CN4001 B3B-EH-R
CN4002 B3B-EH
CN4003 B2B-EH
IC4202 BU4066BCF-TBB
IC4101 (2/2) NJM4558M-D-TFJ
IC4101 (1/2) NJM4558M-D-TFJ
PB AMP
PB LEVEL ADJ.
EXCEPT YPWXJ, DDXJ, DDXJ/NC TYPES
Q4207 DTC143EK
Q4203 DTC124TKA
Q4204 DTC124TKA
Q4307 2SK373
Q4308 2SK373
-73dBV
-31.2dBV
-13.9dBV
-4.2dBV
-11.2dBV
MPX FILTER
F4401 RTF1208-A
F4402 RTF1208-A
ALC
Q4451~Q4454 : 2SC2712
Q4455 DTC124EK
DOLBY B NR
IC4421 CXA1101P
H: OFF L: ON
H: PB L: REC
IC4301 (2/2) NJM4558M-D-TFJ
IC4301 (1/2) NJM4558M-D-TFJ
REC AMP
REC LEVEL ADJ.
Q4301 2SC2712
Q4302 2SC2712
BIAS ADJ.
BIAS R
BIAS L
BEAT CUT
BIAS OSC
L4351 RTD1065
Q4353 2SD1781K
Q4354 2SD1781K
Q4355 2SD2144S
Q4356 2SC2240
V+6S
V-6S
REC R
GNDA
REC L
PB R
PB L
V+6B
V-6B
GNDB
DOL ON/OFF
DOL PB/REC
PB 1/2
REC MUTE
BIAS CONT
BEAT CUT
B01 B03 B05 B06 B07 B08
TP

● AF (2/2), AMP, PRIMARY AND SECONDARY ASSEMBLIES


TO AF ASSY (1/2) (➡ SCH-3F)
AF ASSY (2/2)
(AWZ8237 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8238 : YPWXJ, DDXJ, DDXJ/NC)
AMP ASSY
(AWZ8244 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8245 : YPWXJ, DDXJ, DDXJ/NC)
IC301 STK4162-2GP
R311 to R314 : 2.2K (1/2W)
FAN MOTOR (AXM7005)
PHONO IN
J3001 AUX IN
GND.RP (REAR PANEL)
FUNCTION SW.
IC2001 BU4052BCF-T8B
SOUND FEELD CONTROL
IC2002 PM0006A
IC2004 (2/2) NJM4558M-D-TFJ
IC2004 (1/2) NJM4558M-D-TF
TO VR ASSY CN69
CN19 TUC-P12P-B1
TO FM/AM TUNER MODULE CN6201 (➡ SCH-5F)
TO GM-CD ASSY CN67
SYSTEM CONTROL IC3001 PDG164A
AC WAVE
RESET
TAPE SPEED ADJ
SR OUT
SP OUTPUT LEVEL DETECT
SP RELAY DRIVE
DC DETECT
OVER CURRENT DETECT
FAN STOP DETECT
FAN CONTROL
POWER ON : 4.6V STANDBY 2V
TO FRONT ASSY J72 (➡ SCH-2F)
FRONT SP OUT
REAR SP OUT
NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB TYPES
PRIMARY ASSY (AWZ8253 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
T1 POWER TRANSFORMER ATS7103 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB
SECONDARY ASSY
(AWZ8260 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8261 : YPWXJ, DDXJ, DDXJ/NC)
AC POWER CORD
PDG1055 : NVXJ
PDG1058 : MYIXJ, MYXJ/EA, MYXJ/EB
NVXJ : AC230V 50/60Hz
MYXJ/EA, MYXJ/EB, MYIXJ : AC220-230V 50/60Hz
FU101 : AEK1055
TO REG ASSY J14
TO FRONT ASSY CN70 (➡ SCH-2F)
TO FORNT ASSY CN73 (➡ SCH-2F)
R3046
100 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB TYPES
0 : YPWXJ, DDXJ, DDXJ/NC TYPES
NOTE
If the parts are not identified, the followings are used.
1SS254-T

SCH-4F

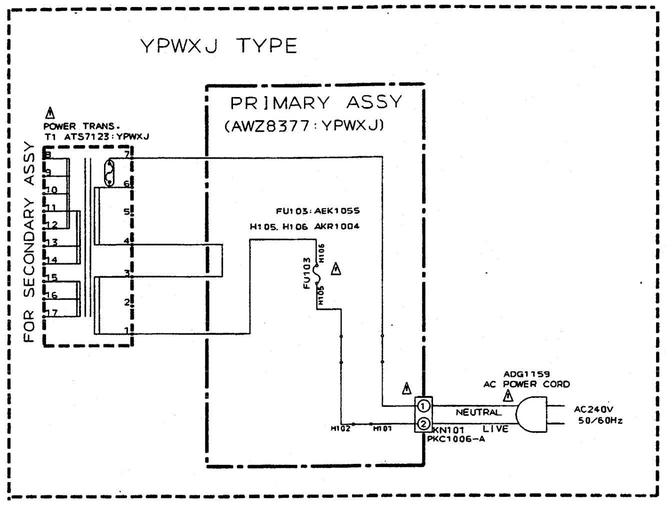
AF ASSY (2/2), AMP ASSY,
PRIMARY ASSY, SECONDARY ASSY

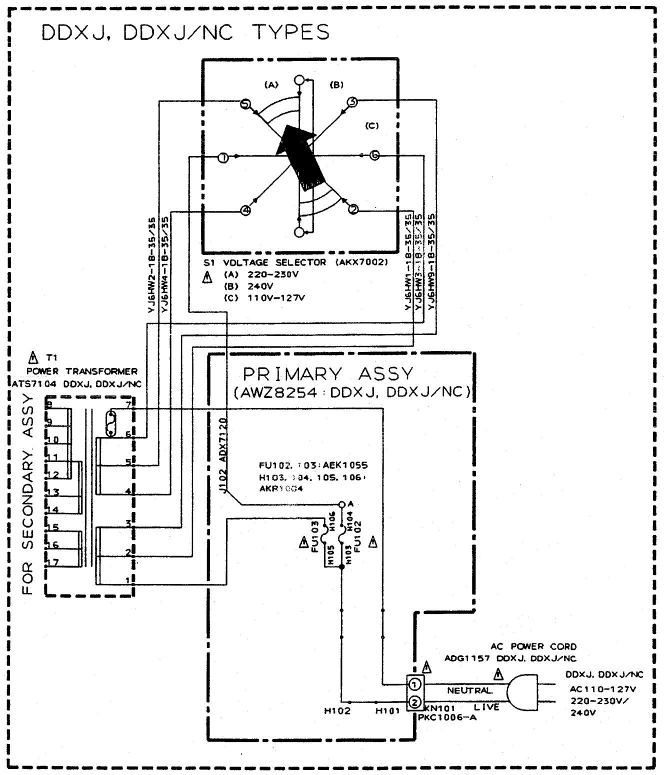

(2/2)
/XJ, MYIXJ, MYXJ/EA, MYXJ/EB)
PWXJ, DDXJ, DDXJ/NC)
AMP ASSY
(AWZ8244 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8245 : YPWXJ, DDXJ, DDXJ/NC)
EXCEPT YPWXJ, DDXJ, DDXJ/NC TYPES
IC301 STK4162-2GP
TH351 AEK7002-A
R311 to R314 2.2K (1/2W)
FAN MOTOR (AXM7005)
TO VR ASSY CN69
POWER ON:4.6V STANDBY 2V
SP OUTPUT LEVEL DETECT
FAN STOP DETECT
FAN CONTROL
SP RELAY DRIVE
DC DETECT
OVER CURRENT DETECT
TO FRONT ASSY J72 (SCH-2F)
FRONT SP OUT
REAR SP OUT
NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB TYPES
PRIMARY ASSY
(AWZ8253 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
SECONDARY ASSY
(AWZ8260 : NVXJ, MYIXJ, MYXJ/EA, MYXJ/EB)
(AWZ8261 : YPWXJ, DDXJ, DDXJ/NC)
AC POWER CORD
PDG1055 : NVXJ
PDG1058 : MYIXJ, MYXJ/EA, MYXJ/EB
NVXJ : AC230V 50/60Hz
MYXJ/EA, MYXJ/EB, MYIXJ : AC220-230V 50/60Hz
FU101 AEK1055
TO REG ASSY J14
SSY CN73
H-2F)

NOTE:
If the parts are not identified.
the followings are used.
1SS254-T

SIGNAL ROUTE
▶ : AUDIO SIGNAL
▶ : TUNER AUDIO SIGNAL
▶ : AUX AUDIO SIGNAL
▷ : DECK PLAYBACK SIGNAL
▶ : DECK RECORDING SIGNAL
▶ : PLAYER SIGNAL
▶ : MIC AUDIO SIGNAL
▶ : CD AUDIO SIGNAL

SCH-4F


YPWXJ TYPE
PRIMARY ASSY
(AWZ8377 : YPWXJ)
POWER TRANS. T1 ATS7123 : YPWXJ
FOR SECONDARY ASSY
FU105 : AEK1055
H105, H106 AKR1004
ADG1159 AC POWER CORD
NEUTRAL
LIVE
AC240V 50/60Hz
PKC1006-A


DDXJ, DDXJ/NC TYPES
S1 VOLTAGE SELECTOR (AKX7002)
(A) 220-230V
(B) 240V
(C) 110V-127V
T1 POWER TRANSFORMER ATS7104 DDXJ, DDXJ/NC
PRIMARY ASSY
(AWZ8254 : DDXJ, DDXJ/NC)
FOR SECONDARY ASSY
FU102, 103 : AEK1055
H103, 104, 105, 106 : AKR1004
AC POWER CORD ADG1157 DDXJ, DDXJ/NC
NEUTRAL
LIVE
AC110-127V 220-230V/ 240V
PKC1006-A

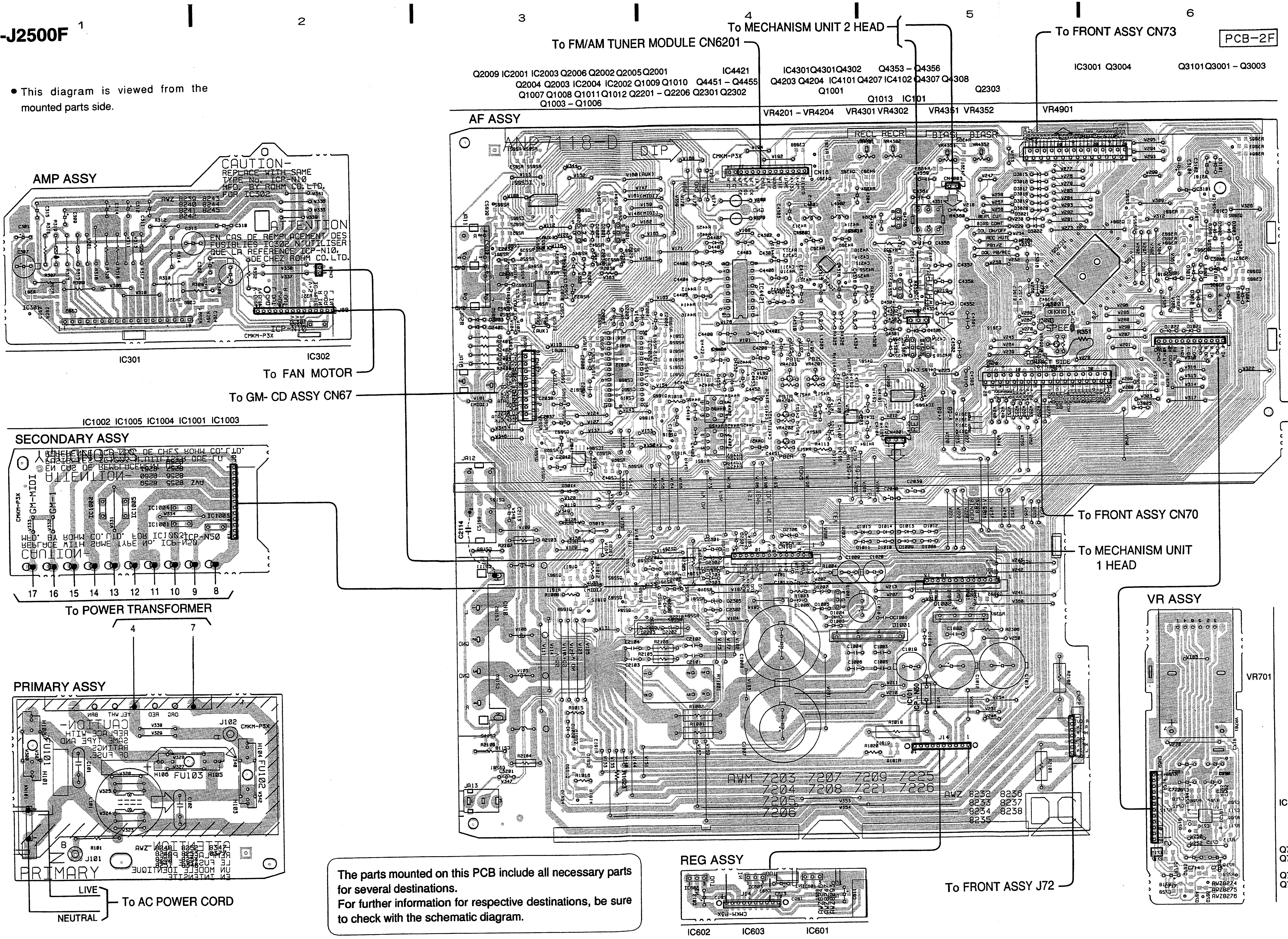
● NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME
TYPE AND RATINGS ONLY.

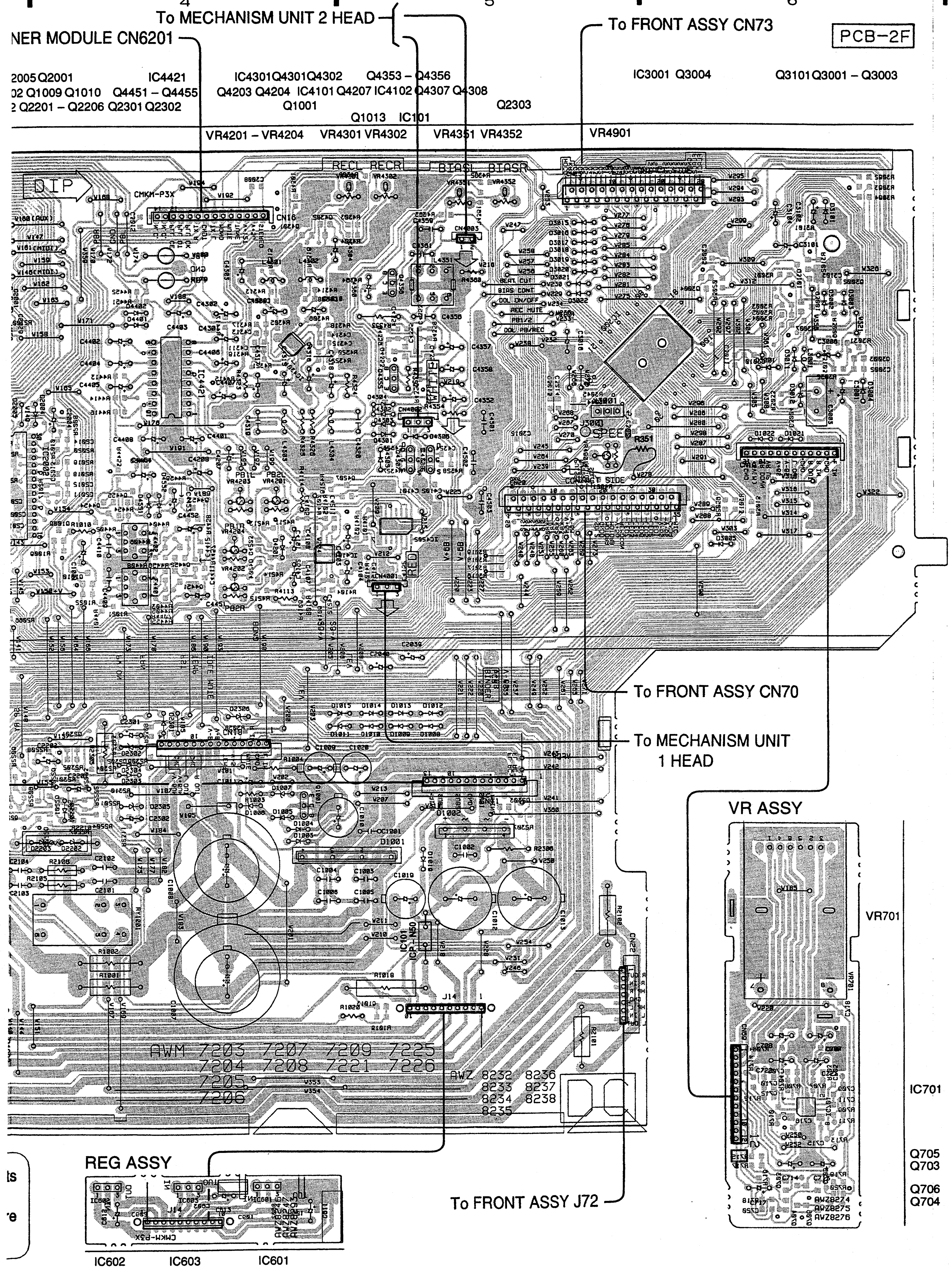
**AF ASSY (2/2), AMP ASSY,
PRIMARY ASSY, SECONDARY ASSY**

SCH-4F

- This diagram is viewed from the mounted parts side.


1
2
3
4
5
6
PCB-2F
A
B
C
D
To MECHANISM UNIT 2 HEAD
To FM/AM TUNER MODULE CN6201
To FRONT ASSY CN73
Q2009 IC2001 IC2003 Q2006 Q2002 Q2005 Q2001
Q2004 Q2003 IC2004 IC2002 Q1009 Q1010
Q1007 Q1008 Q1011 Q1012 Q2201 – Q2206 Q2301 Q2302
Q1003 – Q1006
IC4421
Q4451 – Q4455
IC4301 Q4301 Q4302
Q4203 Q4204 IC4101 Q4207 IC4102
Q1001
Q4353 – Q4356
Q4307 Q4308
Q1013 IC101
Q2303
IC3001 Q3004
Q3101 Q3001 – Q3003
VR4201 – VR4204
VR4301 VR4302
VR4351 VR4352
VR4901
AF ASSY
AMP ASSY
CAUTION-
REPLACE WITH SAME TYPE No. ICP-N10 MFD. BY ROHM CO.LTD. FOR IC302
ATTENTION
EN CAS DE REMPLACEMENT DES FUSIBLES IC302 N'UTILISER QUE LA REFERENCE ICP-N10, DE CHEZ ROHM CO.LTD.
IC301
IC302
To FAN MOTOR
To GM- CD ASSY CN67
IC1002 IC1005 IC1004 IC1001 IC1003
SECONDARY ASSY
17
16
15
14
13
12
11
10
9
8
To POWER TRANSFORMER
4
7
PRIMARY ASSY
J102
FU101
FU102
FU103
J101
PRIMARY
LIVE
NEUTRAL
To AC POWER CORD
To FRONT ASSY CN70
To MECHANISM UNIT 1 HEAD
VR ASSY
VR701
IC701
Q705
Q703
Q706
Q704
AWM 7203 7207 7209 7225
7204 7208 7221 7226
7205
7206
AWZ 8232 8236
8233 8237
8234 8238
8235
REG ASSY
IC602
IC603
IC601
To FRONT ASSY J72
18

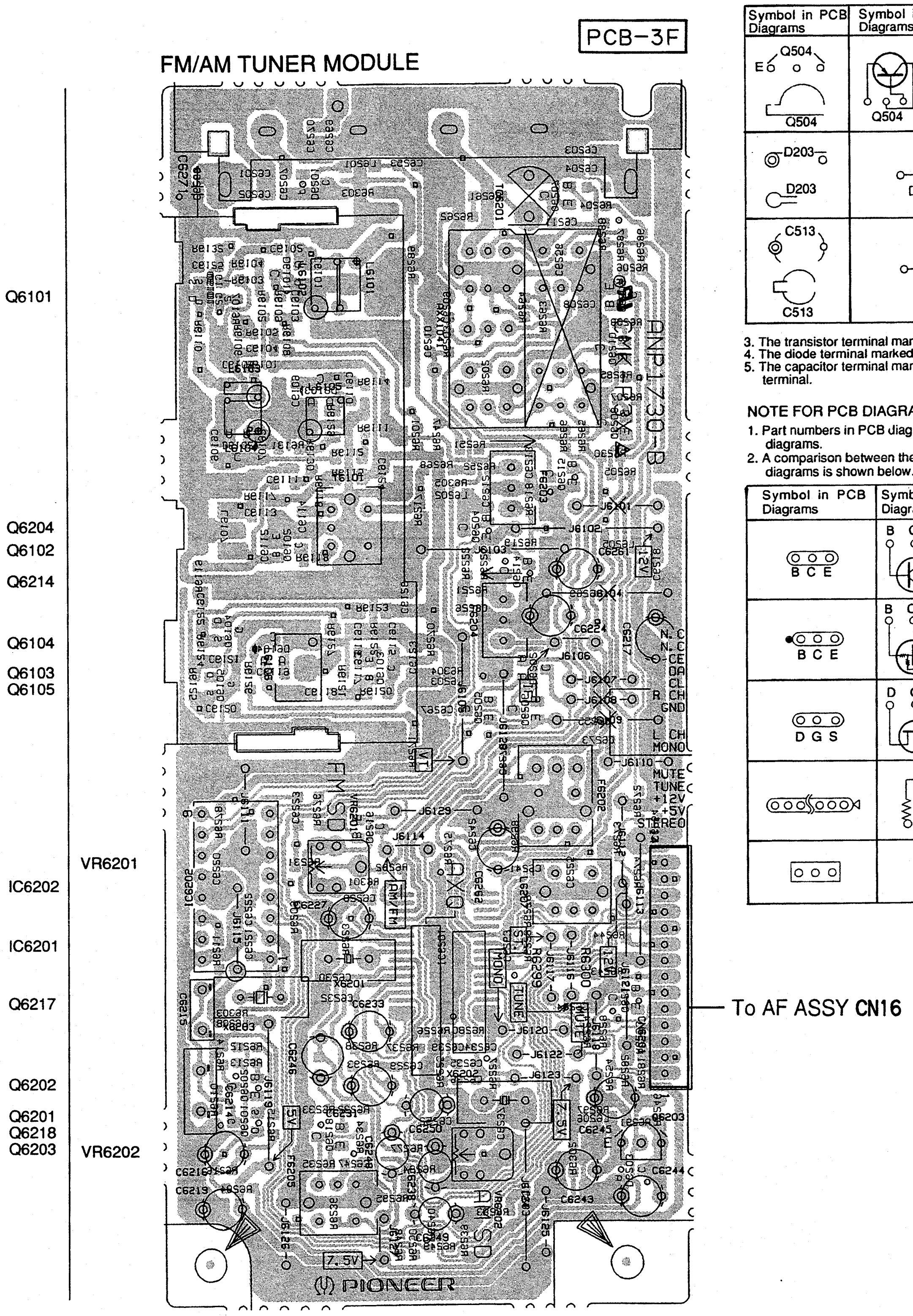
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.


To MECHANISM UNIT 2 HEAD
NER MODULE CN6201
To FRONT ASSY CN73
PCB-2F
2005 Q2001 IC4421 IC4301 Q4301 Q4302 Q4353 – Q4356 IC3001 Q3004 Q3101 Q3001 – Q3003
02 Q1009 Q1010 Q4451 – Q4455 Q4203 Q4204 IC4101 Q4207 IC4102 Q4307 Q4308
2 Q2201 – Q2206 Q2301 Q2302 Q1001 Q2303
Q1013 IC101
VR4201 – VR4204 VR4301 VR4302 VR4351 VR4352 VR4901
To FRONT ASSY CN70
To MECHANISM UNIT 1 HEAD
VR ASSY
VR701
IC701
Q705
Q703
Q706
Q704
REG ASSY
To FRONT ASSY J72
IC602 IC603 IC601

3.4 FM/AM TUNER MODULE

- This diagram is viewed from the mounted parts side.

FM/AM TUNER MODULE


PCB-3F
Q6101
Q6204
Q6102
Q6214
Q6104
Q6103
Q6105
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201
Q6218
Q6203
VR6202
To AF ASSY CN16
PIONEER

NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

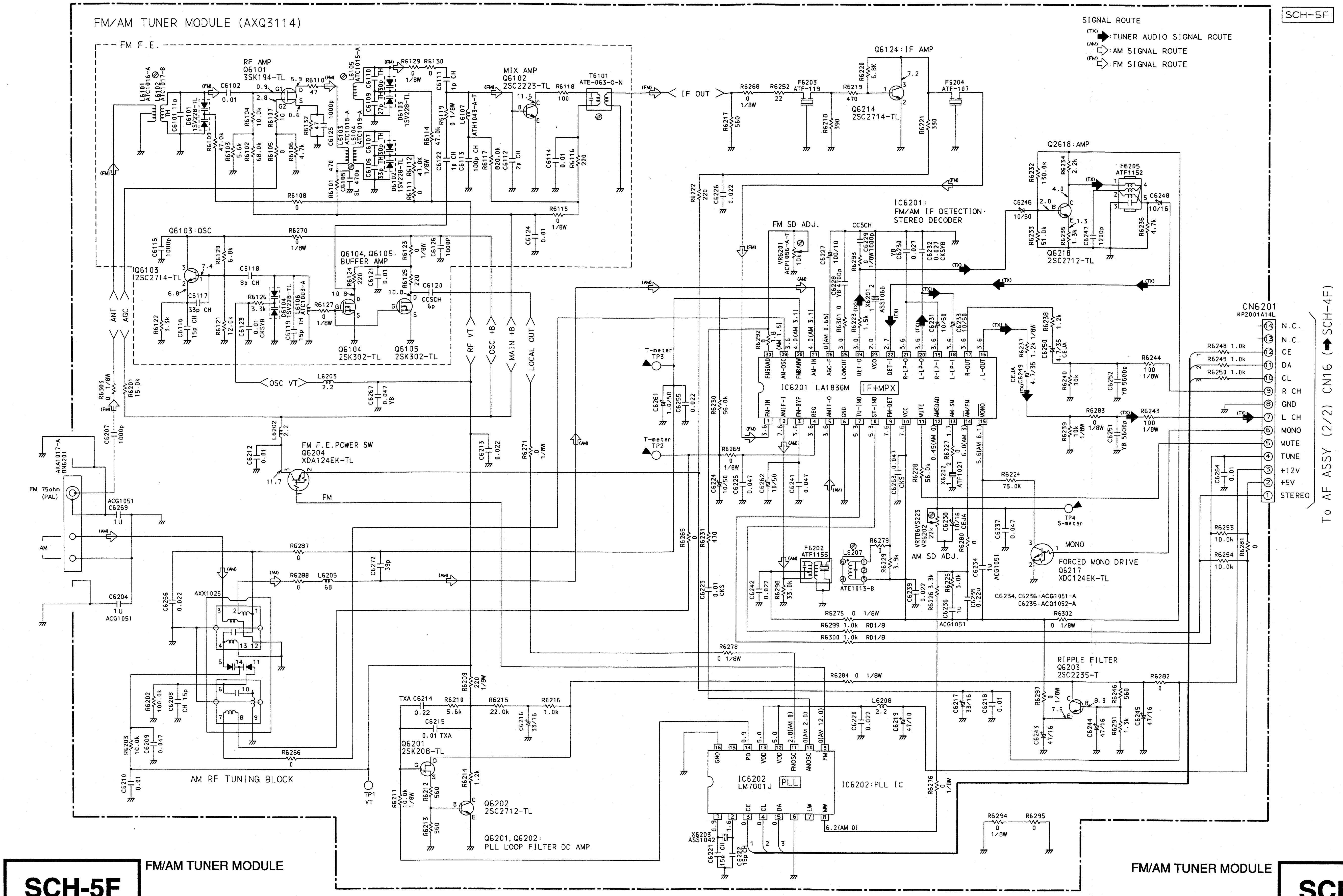
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
E Q504 Q504	Q504 Q504	Transistor
D203 D203	D203	Diode
C513 C513	C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.


SCH-5F
FM/AM TUNER MODULE (AXQ3114)
FM F.E.
RF AMP
Q6101
3SK194-TL
MIX AMP
Q6102
2SC2223-TL
T6101
ATE-063-O-N
IF OUT
Q6124 : IF AMP
Q6214
2SC2714-TL
F6203
ATF-119
F6204
ATF-107
SIGNAL ROUTE
(TX) : TUNER AUDIO SIGNAL ROUTE
(AM) : AM SIGNAL ROUTE
(FM) : FM SIGNAL ROUTE
Q2618 : AMP
Q6218
2SC2712-TL
F6205
ATF1152
Q6103 : OSC
Q6103
2SC2714-TL
Q6104, Q6105
BUFFER AMP
Q6104
2SK302-TL
Q6105
2SK302-TL
ANT
AGC
RF VT
OSC +B
MAIN +B
LOCAL OUT
OSC VT
FM SD ADJ.
VR6201
ACP1056-A-T
IC6201 :
FM/AM IF DETECTION
STEREO DECODER
IC6201 LA1836M
IF+MPX
FMSDAD
AM-OSC
FMBANW
AM-IN
AGC-F
LOWCUT
DET-O
VCO
DET-I
R-LP-O
L-LP-O
R-LP-I
L-LP-I
R-OUT
L-OUT
FM-IN
AMIF-I
FM-BYP
REG
AMIF-O
GND
TU-IND
ST-IND
FM-DET
VCC
MUTE
AMSDAD
AM-SM
AM/FM
MONO
T-meter
TP3
T-meter
TP2
CN6201
KP2001A14L
N.C.
N.C.
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
To AF ASSY (2/2) CN16 (SCH-4F)
FM F.E. POWER SW
Q6204
XDA124EK-TL
FM 75ohm
(PAL)
AM
AKA1017-A
BN6201
AXX1025
AM RF TUNING BLOCK
F6202
ATF1155
L6207
ATE1013-B
AM SD ADJ.
VRTB6VS223
VR6202
TP4
S-meter
FORCED MONO DRIVE
Q6217
XDC124EK-TL
C6234, C6236 : ACG1051-A
C6235 : ACG1052-A
RIPPLE FILTER
Q6203
2SC2235-T
TP1
VT
Q6201
2SK208-TL
Q6202
2SC2712-TL
Q6201, Q6202 :
PLL LOOP FILTER DC AMP
IC6202
LM7001J
PLL
IC6202 : PLL IC
X6203
ASS1042
X6201
ASS1066
X6202
ATF1027

SCH-5F

FM/AM TUNER MODULE

FM/AM TUNER MODULE

SCH-5F

4. ADJUSTMENTS

4.1 TUNER SECTION

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between IC6201–Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) becomes 0V±50mV.
2	Front End Sencitivity	106	0–30	106MHz	L6104 L6105 L6102 T6101	After adjusting L6104 and L6105 so that the DC voltage between LC6201–Pin12 and GND (or ⊕ leads of C6238 and GND) becomes at maximum level, adjust T6101 and L6102.
3	Stereo Distortion	98	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
4	TUNED IND. Lighting Level	98	15±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102 and between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM →FM.*
- *Adjustment sequence: L6104 → L6105 → L6102 → T6101*

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999 *1	47±2	999kHz *1	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

**1: For the area using 10kHz step, frequencies should be 1000 kHz*

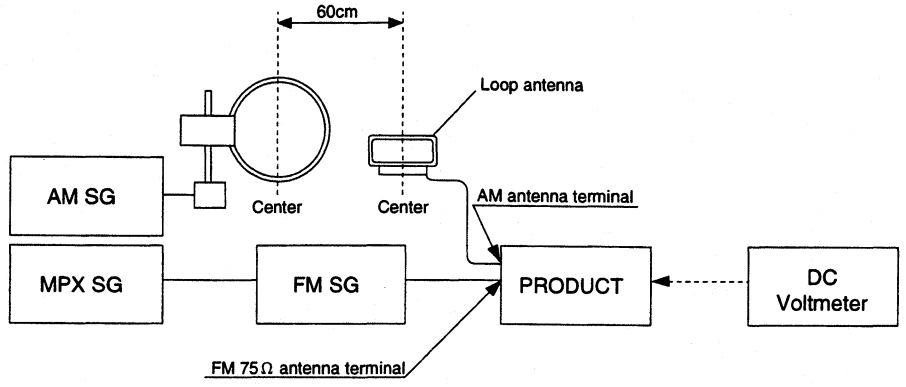

60cm
Loop antenna
AM SG
Center
Center
AM antenna terminal
MPX SG
FM SG
PRODUCT
DC Voltmeter
FM 75Ω antenna terminal

Fig. 1–1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE (AXQ3114)

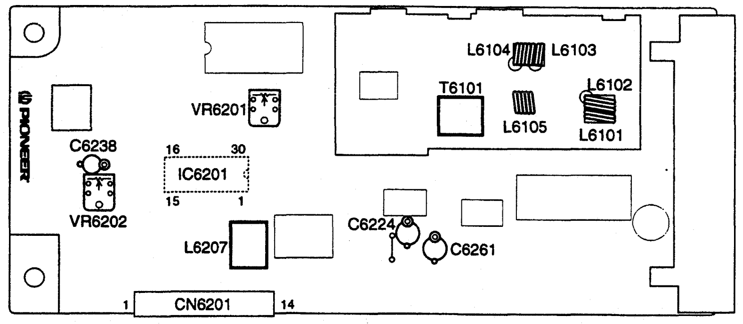
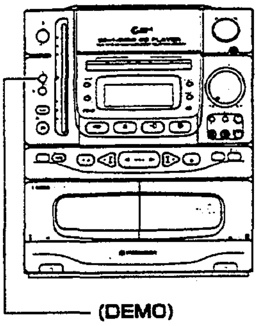

L6104
L6103
T6101
L6102
L6105
L6101
VR6201
PIONEER
C6238
16
30
IC6201
15
1
VR6202
L6207
C6224
C6261
1
CN6201
14

Fig. 1–2 Adjustment Points

Service Manual

PIONEER®
The Art of Entertainment



PION-04890

SERVICE GUIDE

ORDER NO.
RRV1430

STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

XR-P760F

CONTENTS

1. DISASSEMBLY 2
2. HOW TO DIAGONISE CIRCUIT WHEN PRIMARY FUSE BLOWS 9
3. FLOW CHART 15
4. BLOCK DIAGRAM 26

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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T-DFK NOV. 1995 Printed in Japan

1. DISASSEMBLY (各部のはずしかた)

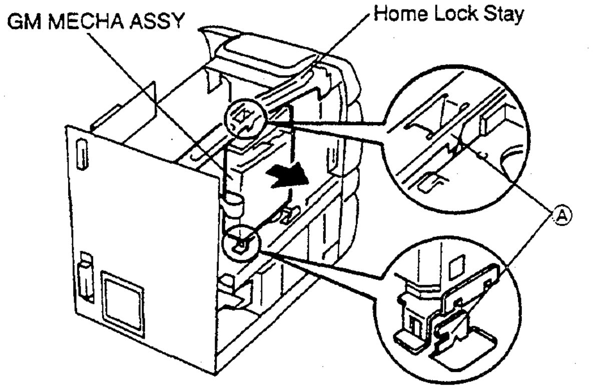
■ REMOVING THE GM MECHA ASSY (GMメカASSYのはずしかた)

NOTE : Before removing the GM Mecha Assy, make sure you turn the power OFF and disconnect the AC power cord.

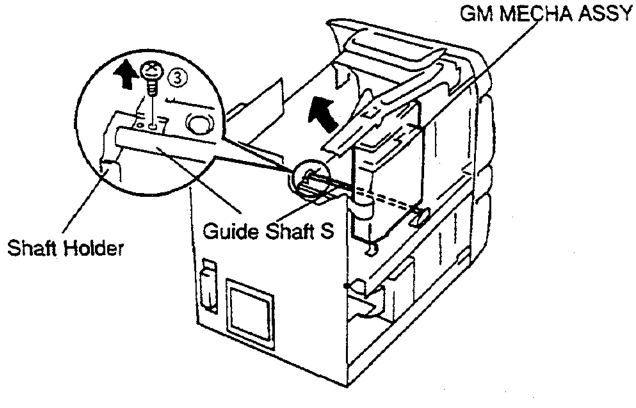
(注意： はずす前に必ず電源を切ってから電源コードを抜いてください。)

① Remove the bonnet. (Since the front of the home lock stay makes contact, hold the bonnet in that place and pull and lift at the same time.)
(ボンネットをはずす。ホームロックステイのフロント側があたるので、その箇所のボンネットを持ち上げながら引く。)

② Move the GM Mecha ASSY to the right (viewed from the rear), watching out for the 2 Lock locations (partⒶ).
(GMメカASSYをロック2ケ所(Ⓐ部)を解除して、リア側から見て右端に移動する。)


GM MECHA ASSY
Home Lock Stay
Ⓐ

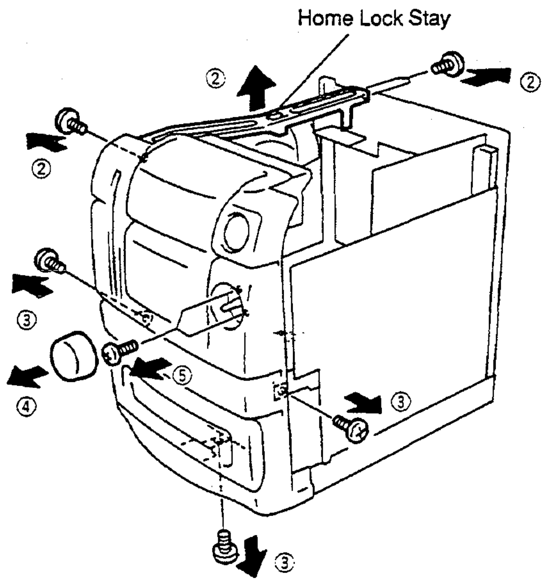
③ Remove the shaft holder that fixes guide shaft S in place (screw ③), and remove the GM Mecha ASSY together with guide shaft S.
(ガイドシャフトSを固定しているシャフトフォルダーをはずし(ネジ③) ガイドシャフトSごとGMメカASSYをはずす。)


GM MECHA ASSY
③
Shaft Holder
Guide Shaft S

■ REMOVING THE FRONT PANEL (フロントパネルのはずしかた)

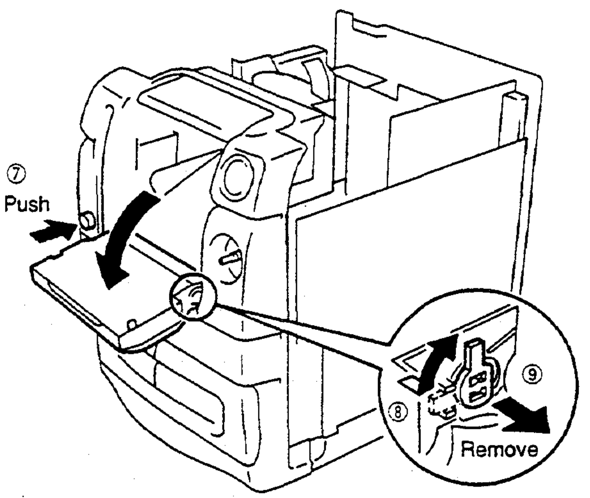
① Remove the bonnet.
(ボンネットをはずす。)

②–⑤


Home Lock Stay
②
②
②
③
④
⑤
③
③

⑥ Remove the HEADPHONE ASSY wire rod.
(HEADPHONE ASSYの線材をはずす。)

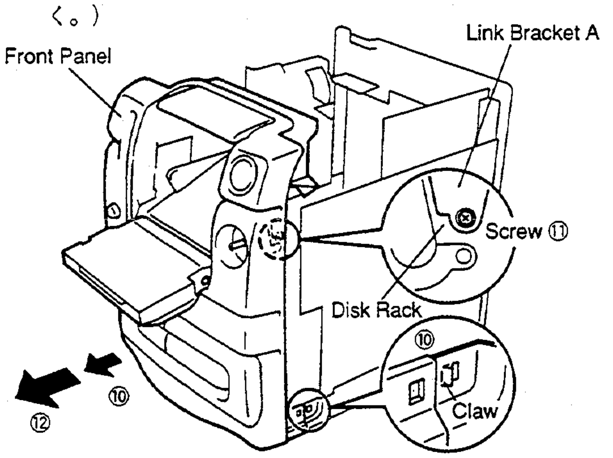
⑦–⑨


⑦
Push
⑨
⑧
Remove

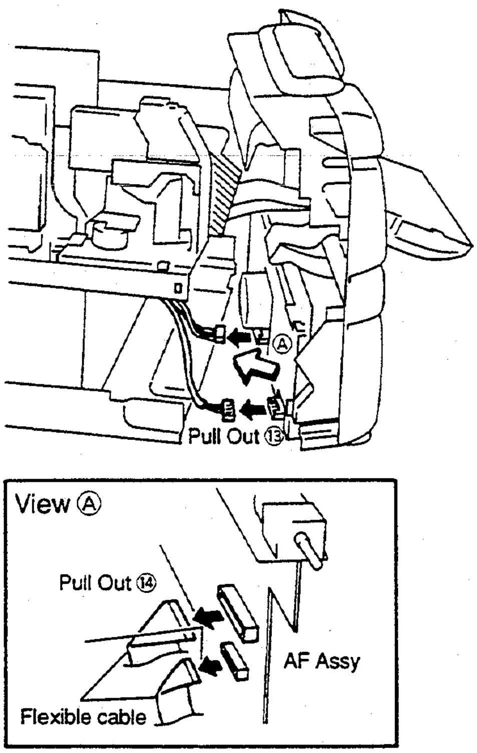
⑩ Shift the front panel slightly toward you, being cautious of the left and right catches on the chassis and sub chassis.
（フロントパネルをシャーシとサブシャーシの左右のツメに注意しながら手前に少しずらす。）

⑪ Remove screw ⑪ and remove link bracket A from the disc rack.
（ネジ⑪をはずしてディスクラックからリンクカナグAをはずす。）

⑫ Pull the front panel further toward you, and remove it from the chassis.
（フロントパネルをさらに手前に引き、シャーシから抜く。）


Link Bracket A
Front Panel
Screw ⑪
Disk Rack
⑩
Claw
⑩
⑫

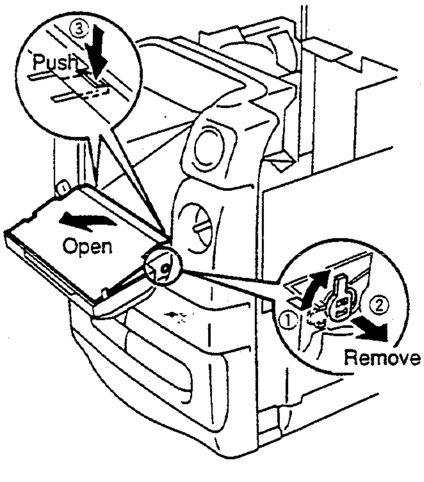
⑬, ⑭


Ⓐ
Pull Out ⑬
View Ⓐ
Pull Out ⑭
AF Assy
Flexible cable

■ MICRO COMPUTER IC REPLACEMENT METHOD
(マイコンICの交換方法)

①, ②, ③

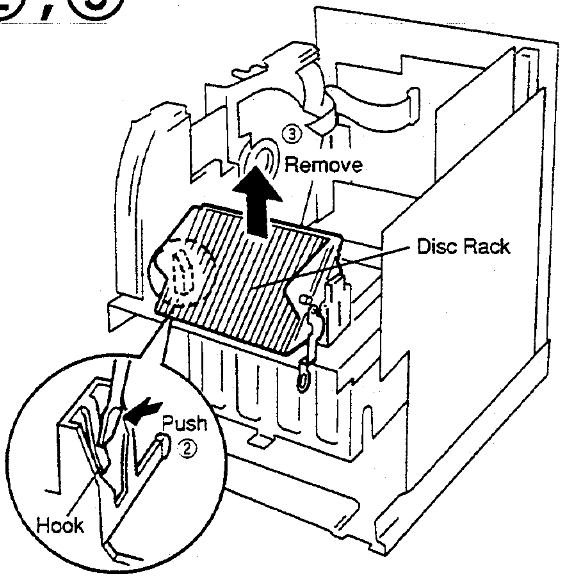
The micro computer IC can be easily replaced when the front panel has been removed.


③
Push
Open
②
①
Remove

■ REMOVING THE DISC RACK
(ディスクラックのはずしかた)

① Remove the front panel.
（フロントパネルをはずす。）

②, ③

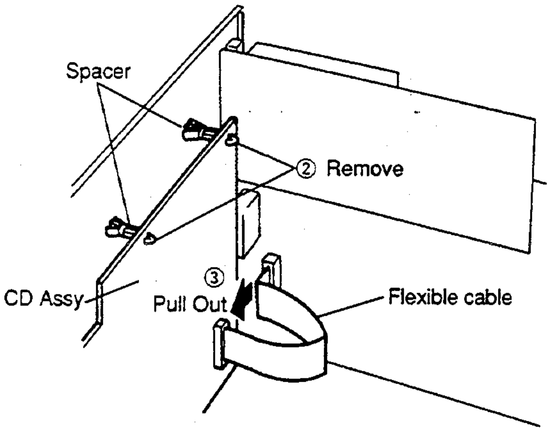

③
Remove
Disc Rack
Push
②
Hook

■ REMOVING THE POWER AMP MODULE (パワーアンプモジュールのはずしかた)

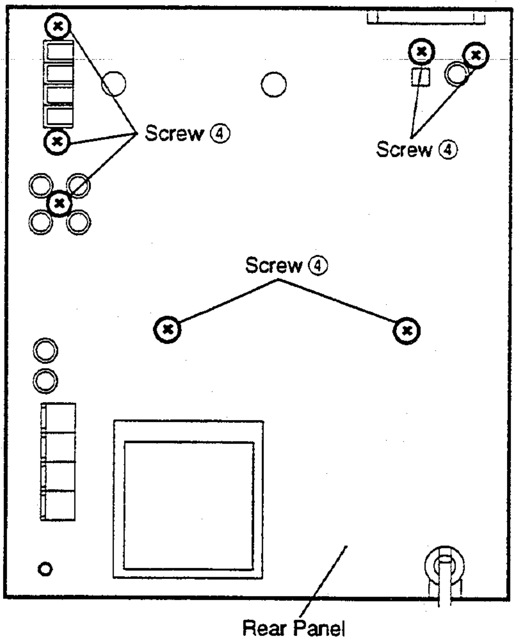
① Remove the bonnet and home lock stay.
(Refer to "■ Removing the Front Panel")
(ボンネットとホームロックステイをはずす。)
("フロントパネルのはずしかた"参照)

②,③

Remove the spacer from the CD ASSY.
(CD ASSYからロッキングカードスペーサをはずす。)

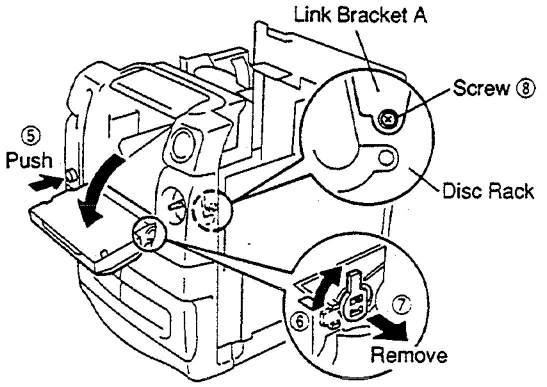

Spacer
② Remove
CD Assy
③
Pull Out
Flexible cable

④ Remove the rear panel (screw ④ x 7).
(リアパネルをはずす。(ネジ④ 7本))


Screw ④
Screw ④
Screw ④
Rear Panel

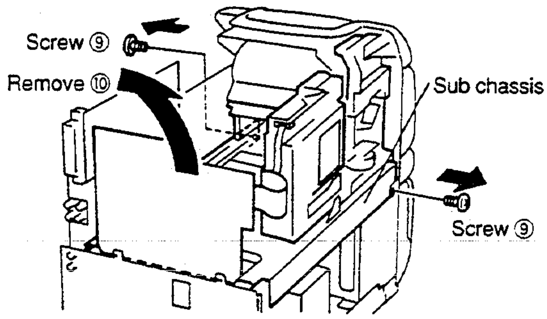
⑤-⑧

Remove screw ⑧ and remove link bracket A from the disc rack.
(ネジ⑧をはずしてディスクラックからリンクカナグAをはずす。)

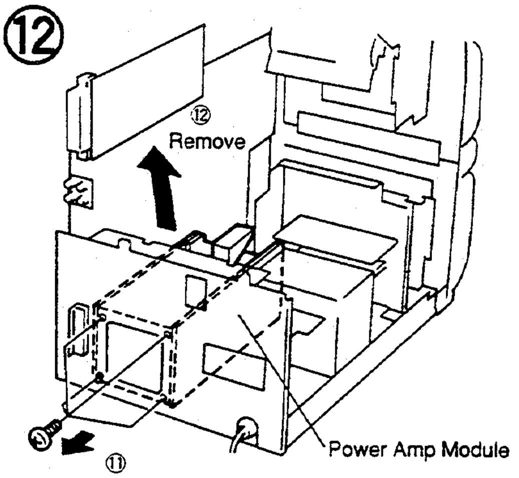

Link Bracket A
Screw ⑧
⑤
Push
Disc Rack
⑥
⑦
Remove

⑨,⑩

Remove screw ⑨ and remove the sub chassis together with the GM Slot-In Mecha ASSY and the GM Mecha ASSY.
(ネジ⑨をはずしてGMスロットインメカ、GMメカごとサブシャーシをはずす。)

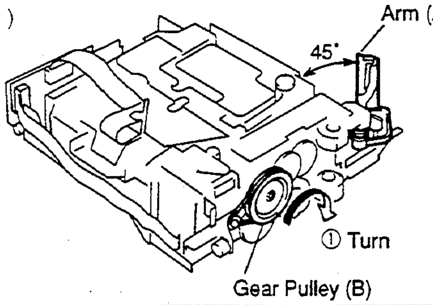

Screw ⑨
Remove ⑩
Sub chassis
Screw ⑨

⑪,⑫

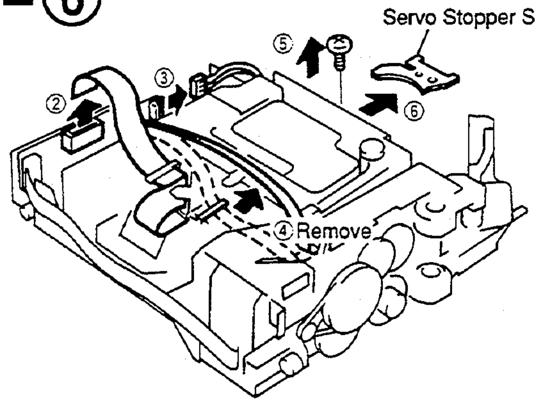

⑫
Remove
Power Amp Module
⑪

■ REMOVING THE SERVO MECHANISM ASSY GM
(サーボメカASSY GMのはずしかた。)

① Turn gear pulley (B) and position Arm (A) as shown below.
(ギアプーリーBを回して、アームAを下図の位置にする。)

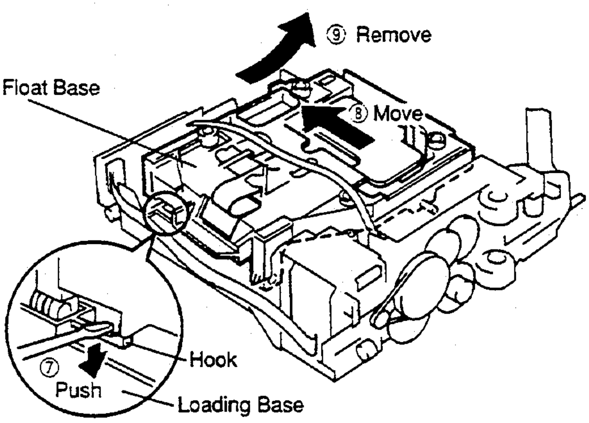

Arm (A)
45°
① Turn
Gear Pulley (B)

②–⑥


Servo Stopper S
⑤
③
②
⑥
④ Remove

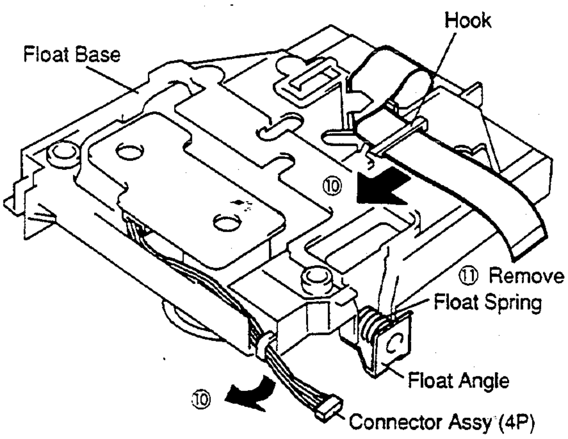
⑦–⑨

Slide the float base in the direction of the arrow ⑧ while pressing down on the loading base hook, and, lifting it gently, pull it out in the direction of the arrow ⑨.
(ローディングベースのフックを下に押しながらフロートベースを矢印⑧方向にスライドさせ、かるく持ち上げながら矢印⑨方向に引き抜く。)

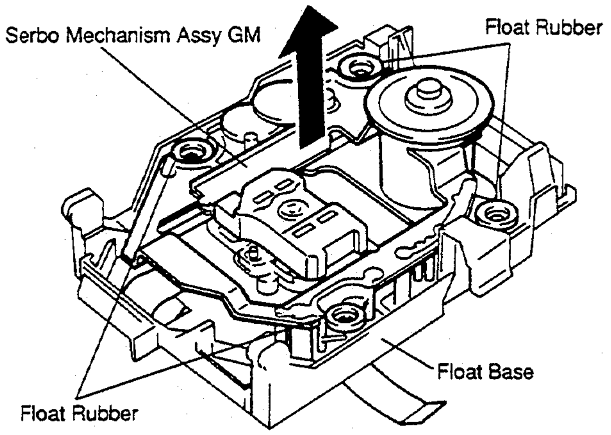

⑨ Remove
Float Base
⑧ Move
Hook
⑦
Push
Loading Base

⑩ Remove the Pickup ASSY flexible cable and the connector ASSY (4P) from the float base.
(ピックアップASSYのフレキシブルケーブルとコネクタASSY(4P)をフロートベースのフックからはずす。)

⑪ Remove the float spring. (To install this part, line up the float angle side of the Servo Mechanism ASSY GM first, and press down on the float base side.)
(フロートスプリングをはずす。)(取り付ける時は、サーボメカASSY GMのフロートアングル側を先に合わせフロートベース側を下に押し込むとよい)


Hook
Float Base
⑩
⑪ Remove
Float Spring
Float Angle
⑩
Connector Assy (4P)

⑫ Remove the float rubber from the Servo Mechanism ASSY GM. At this time the float rubber should remain on the float base side. (To install it on the float base when it has been removed, push it into place with a thin cylindrical object.
(フロームゴムからサーボメカASSY GMをはずす。この時フローゴムはフロートベース側に残すこと。)(はずれたとき、フロートベースに取付けるには細い棒状のもので押し込むと入る。)

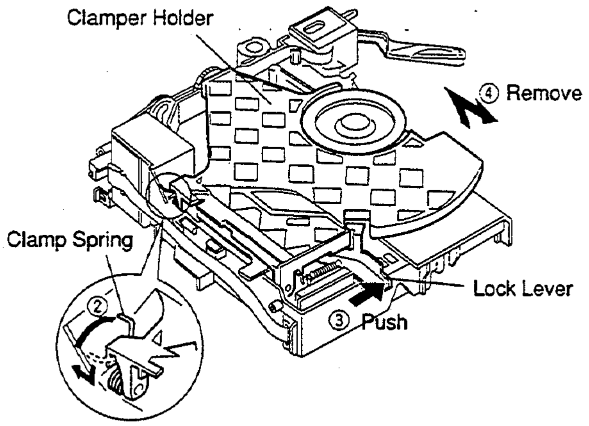

Serbo Mechanism Assy GM
Float Rubber
Float Base
Float Rubber

■ REMOVING THE ARM (A) (アーム(A)のはずしかた)

① Remove the float base together with the Servo Mechanism ASSY GM. (Refer to Steps ①–⑨ for "■ Removing the Servo Mechanism ASSY GM" .)
(サーボメカASSY GMごとフロートベースをはずす(サーボメカASSYのはずしかた①-⑨参照。)

②–④

Remove the clamp spring and remove the clamp holder while pressing down on the lock lever.
(クランプスプリングをはずし、ロックレバーを押しながらクランパーホルダーをはずす。)

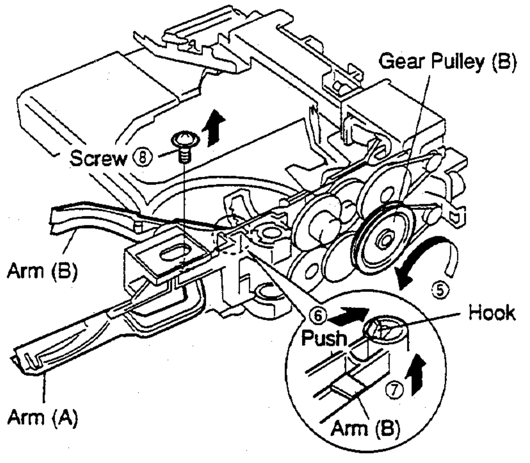

Clamper Holder
④ Remove
Clamp Spring
②
Lock Lever
③ Push

⑤ Turn gear pulley (B) and position Arm (A) as shown below.
(ギアプーリー(B)を回して、アーム(A)を下図の位置にする。)

⑥,⑦

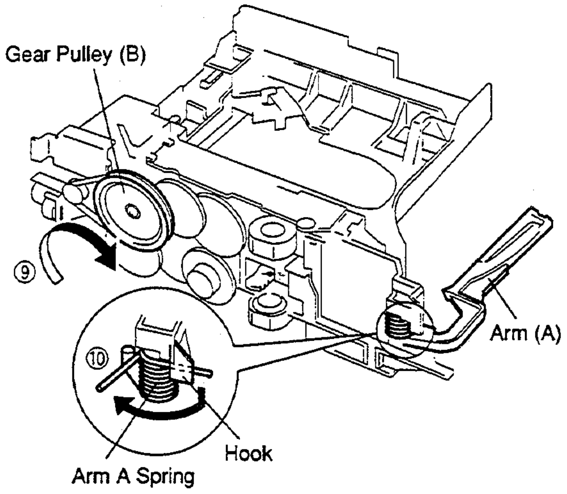
Remove Arm (B) while pressing the hook in the direction of the arrow.
(フックを矢印方向に押しながらアーム(B)をはずす。)

⑧ Remove screw ⑧. (ネジ⑧をはずす。)

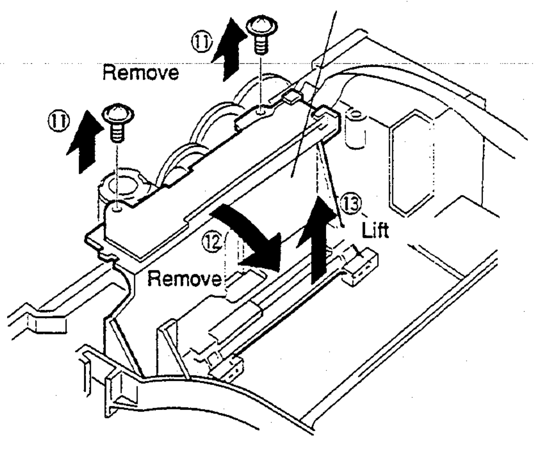

Gear Pulley (B)
Screw ⑧
Arm (B)
⑤
Hook
⑥
Push
⑦
Arm (A)
Arm (B)

⑨ Turn gear pulley (B) and position Arm (A) as shown in below.
(ギアプーリー(B)を回してアーム(A)を下図の位置にする。)

⑩ Remove the Arm A spring from its hook.
(アームAスプリングをフック部からはずす。)


Gear Pulley (B)
⑨
⑩
Arm (A)
Hook
Arm A Spring

⑪–⑬

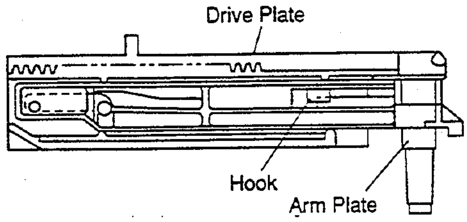

Cam Cover
⑪
Remove
⑪
⑬
Lift
⑫
Remove

⑭ Remove drive plate, Arm plate, Arm A spring and Arm (A). (Refer to Steps ③-④ on page 7.)
(ドライブプレート、アームプレート、アームAスプリング、アーム(A)をはずす。) (7ページの③-④ 参照)

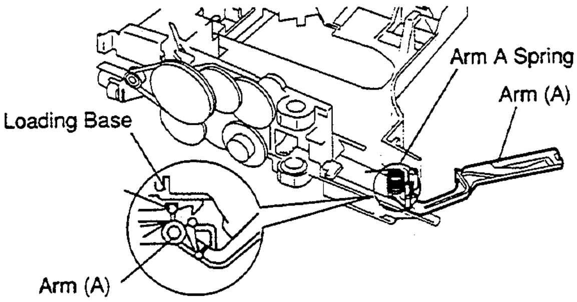
■ FOR REASSEMBLY, REVERSE THE DISASSEMBLY PROCEDURE, AND IN ADDITION CARRY OUT THE FOLLOWING ITEMS.

(組み立てる時は、はずしかたの手順を逆に行う、但し以下の項目を行うこと。)

① Assemble the arm plate as shown below, watching out for the drive plate hook.
(ドライブプレートのフックに注意して下図の位置にアームプレートを組み合わせる。)

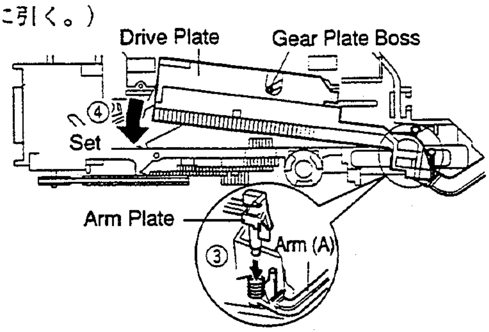

Drive Plate
Hook
Arm Plate

② Place Arm (A) and the Arm A spring on the loading base, being careful to keep them in the position shown in below.
(アーム(A)とアームAスプリングを下図のように合わせ、位置に注意してローディングベースにのせる。)

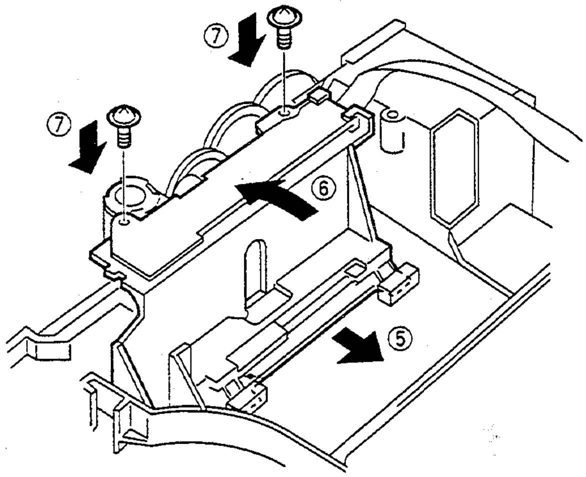

Arm A Spring
Arm (A)
Loading Base
B
Arm (A)

③ Set the drive plate and arm plate, which were assembled in Step ①, on the Arm (A) side as shown below.
At this time be careful to keep Arm (A) in the position described in Step ②.
(①でセットしたドライブプレートを下図のようにアーム(A)側からセットする、この時アーム(A)が②で合わせた位置からずれないように注意する。)

④ Insert the gear plate boss into the drive plate groove and pull it toward you.
(ギアプレートのボスをドライブプレートの溝に入れ手前に引く。)

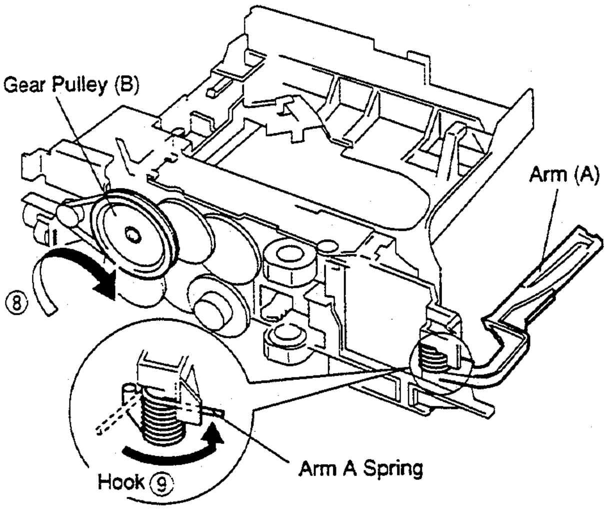

Drive Plate
Gear Plate Boss
④
Set
Arm Plate
Arm (A)
③

⑤–⑦

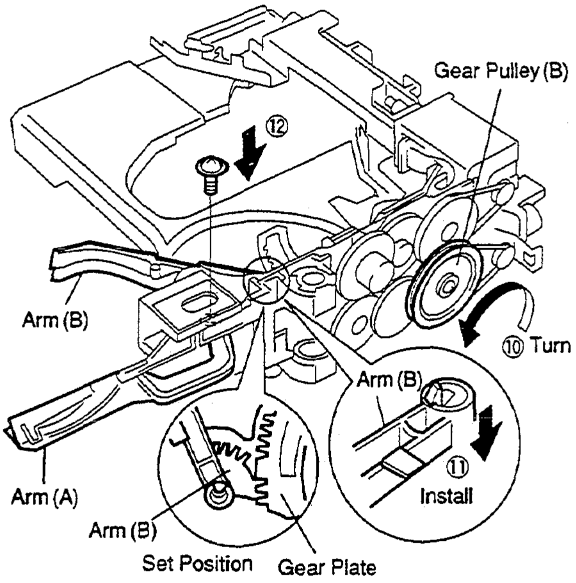


⑧ Turn gear pulley (B) and position Arm (A) as shown in below.
(ギアプーリー(B)を回してアーム(A)を下図の位置にする。)

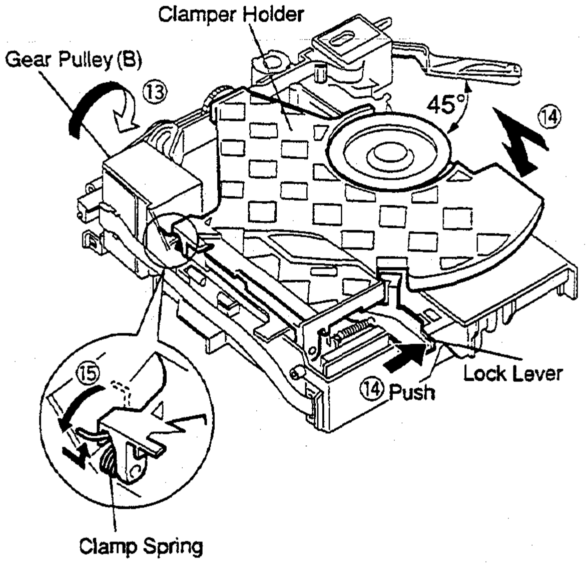
⑨


Gear Pulley (B)
Arm (A)
⑧
Hook ⑨
Arm A Spring

⑩ – ⑫

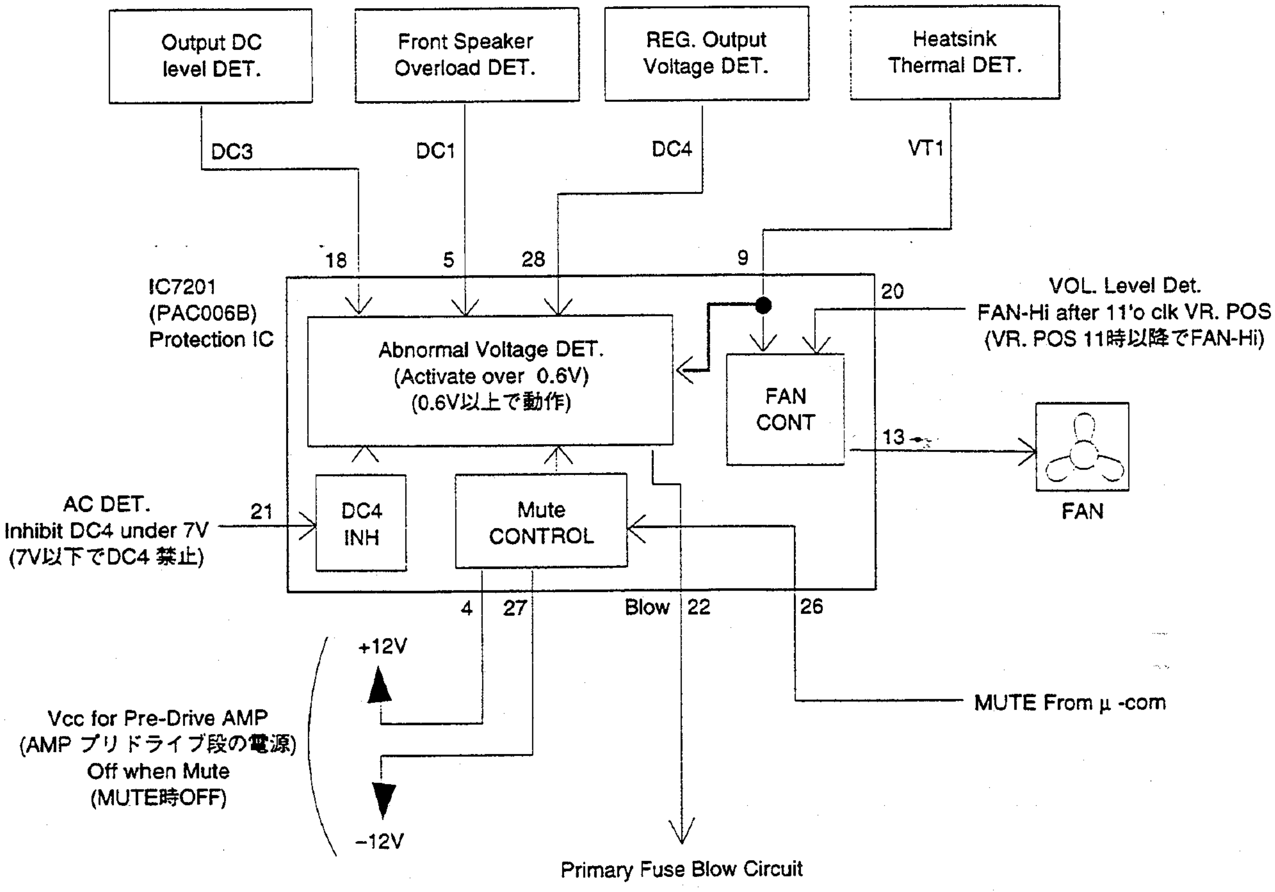

Gear Pulley (B)
⑫
Arm (B)
⑩ Turn
Arm (B)
⑪
Install
Arm (A)
Arm (B)
Set Position
Gear Plate

⑬ – ⑮


Clamper Holder
Gear Pulley (B)
⑬
45°
⑭
⑮
Lock Lever
⑭ Push
Clamp Spring

2. HOW TO DIAGONISE CIRCUIT WHEN PRIMARY FUSE BLOWS
(パワーアンプモジュール診査方法)

2.1 OUTLINE OF PROTECTION CIRCUIT
(保護回路の概要)


Output DC level DET.
Front Speaker Overload DET.
REG. Output Voltage DET.
Heatsink Thermal DET.
DC3
DC1
DC4
VT1
18
5
28
9
IC7201 (PAC006B) Protection IC
20
VOL. Level Det.
FAN-Hi after 11'o clk VR. POS
(VR. POS 11時以降でFAN-Hi)
Abnormal Voltage DET.
(Activate over 0.6V)
(0.6V以上で動作)
FAN CONT
13
FAN
AC DET.
Inhibit DC4 under 7V
(7V以下でDC4 禁止)
21
DC4 INH
Mute CONTROL
4
27
Blow
22
26
+12V
-12V
Vcc for Pre-Drive AMP
(AMP プリドライブ段の電源)
Off when Mute
(MUTE時OFF)
MUTE From μ-com
Primary Fuse Blow Circuit

Outline of Operation

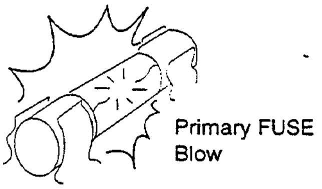
*DC1: When overload is detected at Front speaker terminal DC1 will become over ±0.6V and Protection IC will mute predrive amp circuit (±12V OFF).
(*DC2:Overload detection for rear speaker.)
*DC3: When DC voltage(over ±3DCV) is detected at output of Power amp, DC3 will become over±0.6V and will first mute predrive amp circuit for 2sec and then if does not resume normal condition Fuse blow circuit willbe activated.
*DC4: DC4 detect abnormal voltage at voltage regulator output. When becomes over ±0.6V, Fuse blow circuit will be activated.
*VT1: When temperature of the heatsink become over 105C°, VT1 will become under +7.5V and will first mute predrive amp circuit for 2sec and then if does not resume normal condition Fuse blow circuit will be activated.

(動作概要)

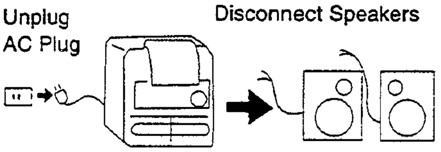
*DC1: DC1が±0.6V以上で フロントスピーカー端子のショートと判定、Muteをかける。(±12V OFFする)
(*DC2:リアスピーカーオーバーロード検出用端子)
*DC3: DC3が+0.6V以上でパワーアンプ出力異常と判定、MUTEを約2秒間かけ復帰しない場合は22ピンがHになりFUSE BLOW回路動作。
*DC4: DC4が+0.6V以上で電源レギュレーター部出力の異常と判定、22ピンがHになりFUSE BLOW回路動作。
*VT1: 放熱器温度 ~95℃:FAN-SPEED LOW, 95℃~ 104℃:FAN-SPEED HIGH, 105℃(VT1=+7.5V)で MUTEを2秒間かけ復帰しない場合はFUSE BLOW回路動作 。

2.2 DIAGNOSTIC FLOW CHART
(診査フロー)

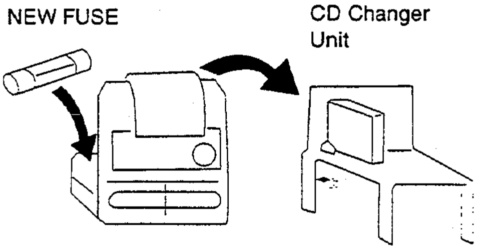
Primary Fuse blown
(1次側ヒューズ容断)


Primary FUSE
Blow

Disconnect Speakers.
Unplug AC Plug.
(スピーカーを外す
ACコンセントを抜く)

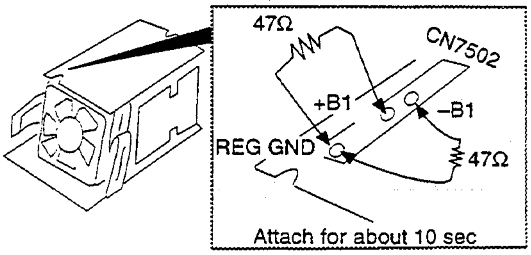

Unplug
AC Plug
Disconnect Speakers

Remove Bonnet and replace fuse with new one. Remove CD changer unit.
(ボンネットを開け、ヒューズを交換する
CDチェンジャー部を取り除く)


NEW FUSE
CD Changer
Unit

Discharge ±B1.
(±B1を放電させる)

Discharge ±B1
Remove Resistors after ±B1 are discharged
(放電後、抵抗を取り外す)

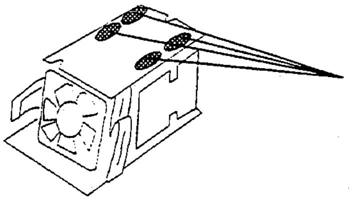

47Ω
CN7502
+B1
−B1
REG GND
47Ω

Attach for about 10 sec

Check Power Trs. Replace if they are defective.
(テスターでパワーTRの良否を確認する)

CHECK : Q7511, Q7512
Q7513, Q7514

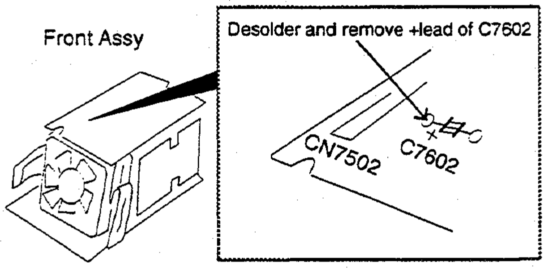
Front Assy



Check short circuit between Emitter and Collector of Q7511, Q7512, Q7513, Q7514

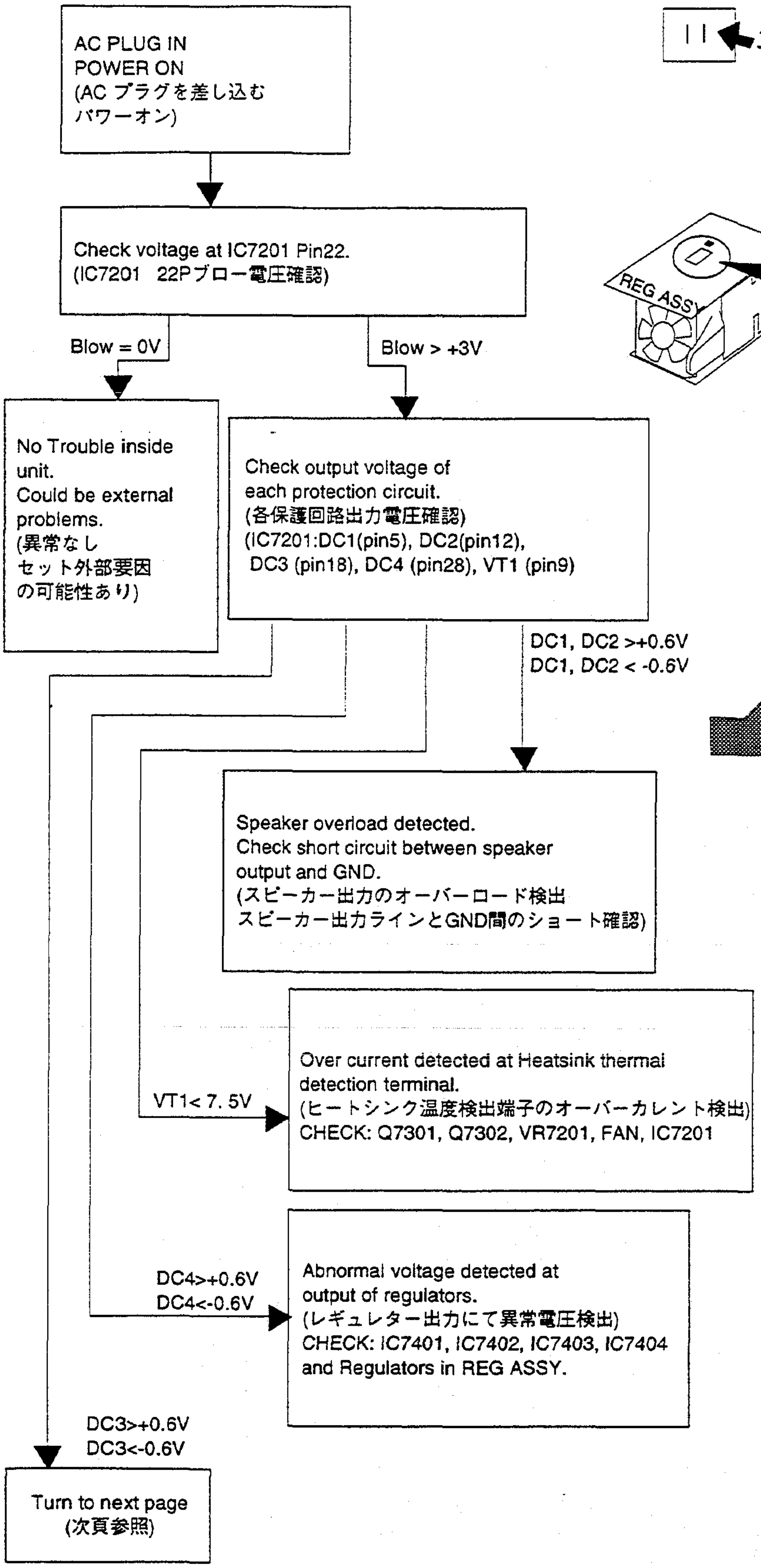
Cut Fuse blow line by desoldering +lead of C7602.
*Remember to solder the lead after end of diagnostics.
(C7602片足を浮かしヒューズブロー回路が動作しないようにする。)
(診断が終わった後必ず
半田付けし元の状態に戻すこと)

Front Assy


CN7502
C7602

Desolder and remove +lead of C7602

TURN TO NEXT PAGE
(次頁参照)



AC PLUG IN
POWER ON
(AC プラグを差し込む
パワーオン)

Check voltage at IC7201 Pin22.
(IC7201 22Pブロー電圧確認)

Blow = 0V

No Trouble inside unit.
Could be external problems.
(異常なし
セット外部要因
の可能性あり)

Blow > +3V

Check output voltage of each protection circuit.
(各保護回路出力電圧確認)
(IC7201:DC1(pin5), DC2(pin12), DC3 (pin18), DC4 (pin28), VT1 (pin9)

DC1, DC2 >+0.6V
DC1, DC2 < -0.6V

Speaker overload detected.
Check short circuit between speaker output and GND.
(スピーカー出力のオーバーロード検出
スピーカー出力ラインとGND間のショート確認)

VT1< 7. 5V

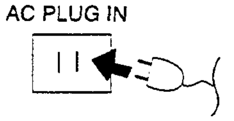
Over current detected at Heatsink thermal detection terminal.
(ヒートシンク温度検出端子のオーバーカレント検出)
CHECK: Q7301, Q7302, VR7201, FAN, IC7201

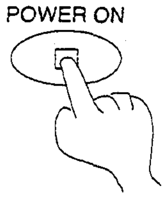
DC4>+0.6V
DC4<-0.6V

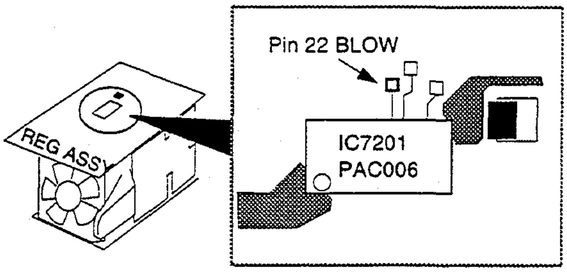
Abnormal voltage detected at output of regulators.
(レギュレター出力にて異常電圧検出)
CHECK: IC7401, IC7402, IC7403, IC7404 and Regulators in REG ASSY.

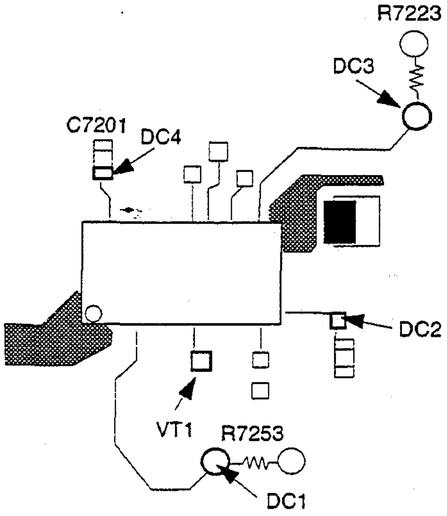
DC3>+0.6V
DC3<-0.6V

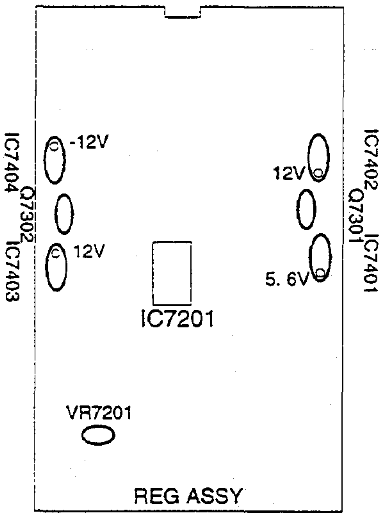
Turn to next page
(次頁参照)





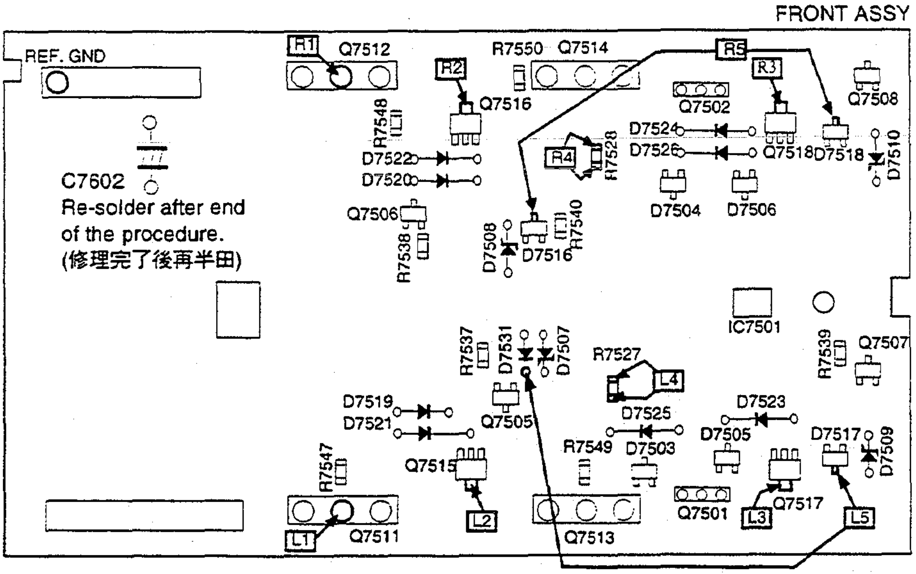

Pin 22 BLOW
IC7201
PAC006
REG ASSY


R7223
DC3
C7201
DC4
DC2
VT1
R7253
DC1


IC7404
Q7302
IC7403
-12V
12V
IC7402
Q7301
IC7401
12V
5. 6V
IC7201
VR7201
REG ASSY

POWER AMP check.
(パワーアンプ部チェック)

CHECK POINT e=emitter, b=base c=collecter	VOLTAGE	DEFECT PART
L ch		
L1(Q7511c-GND) (FAN-Hi)	+B1	D7519, D7521, R7547, Q7511
	- B1	D7523, D7525, R7549, Q7513
L2(Q7515c-GND)	+B1	R7537, Q7505, Q7515
	+B1-1V	D7519
	0V	R7547, D7519
L3(Q7517c-GND)	- B1	R7539, Q7507, Q7517
	- B1+1V	D7525
L4(R7527)	0V	R7549, D7525
L5(D7533-D7517)	0V	D7503, D7505, Q7501
	+13V, 3V	D7507, D7509
	0V	D7517, D7531
R ch		
R1(Q7512c-GND) (FAN-Hi)	+B1	D7520, D7522, R7548, Q7512
	- B1	D7524, D7526, R7550, Q7514
R2(Q7516c-GND)	+B1	R7538, Q7516, Q7506,
	+B1-1V	D7520
	0V	R7548, D7520
R3(Q7518c-GND)	- B1	R7540, Q7508, Q7518
	- B1+1V	D7526
	0V	R7550, D7526
R4(R7528)	0V	D7504, D7506, Q7502
R5(D7516-D7518)	+13V, 3V	D7508, D7510
	0V	D7516, D7518

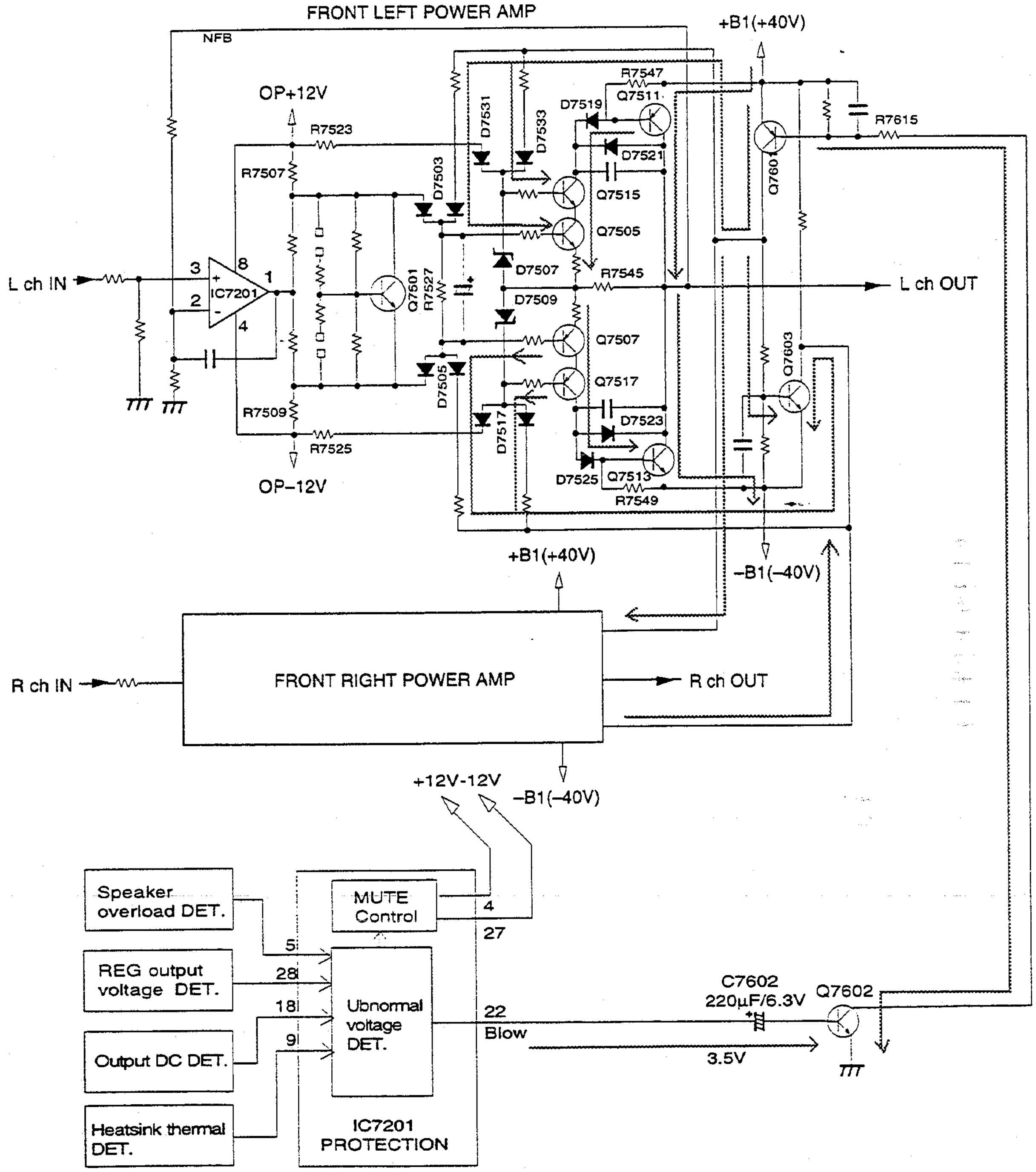

FRONT ASSY
REF. GND
C7602
R1
Q7512
R2
R7548
Q7516
D7522
D7520
Q7506
R7538
R7550
Q7514
R4
R7528
D7508
D7516
R7540
R5
R3
Q7502
D7524
D7526
Q7518
D7518
Q7508
D7510
D7504
D7506
IC7501
R7539
Q7507
R7537
D7531
D7507
R7527
L4
D7519
D7521
Q7505
D7525
R7549
D7503
D7523
D7505
D7517
D7509
R7547
Q7515
L2
L1
Q7511
Q7513
Q7501
L3
Q7517
L5

Re-solder after end of the procedure.
(修理完了後再半田)

ATTENTION (注意)

Switch on the power after replacing defective parts and confirm blow voltage. If the voltage is 0V re-solder the +lead of C7602 and this is the end of the procedure.
Do not forget to re-solder the lead of C7602.
(部品交換後電源をONにして、ブロー電圧が0Vである事を確認する。 最後に、外したC7602のリード線を半田付けし作業を完了して下さい。 C7602は忘れずにに半田付けして下さい。
半田を外したまま修理を完了すると非常に危険ですので注意して下さい。)

2.3 BLOCK DIAGRAM (FUSE BLOW OPERATION)
(ブロック図) (ヒューズブロー動作時)


FRONT LEFT POWER AMP
NFB
+B1(+40V)
OP+12V
R7523
R7507
R7547
Q7511
D7519
D7531
D7533
D7521
R7615
D7503
Q7515
Q7505
Q7601
L ch IN
IC7201
3
8
1
2
4
Q7501
R7527
D7507
R7545
D7509
L ch OUT
Q7507
Q7603
D7505
Q7517
R7509
D7517
D7523
R7525
OP−12V
D7525
Q7513
R7549
+B1(+40V)
−B1(−40V)
R ch IN
FRONT RIGHT POWER AMP
R ch OUT
+12V-12V
−B1(−40V)
Speaker overload DET.
REG output voltage DET.
Output DC DET.
Heatsink thermal DET.
MUTE Control
4
27
5
28
18
9
Ubnormal voltage DET.
22
Blow
IC7201 PROTECTION
C7602
220μF/6.3V
Q7602
3.5V

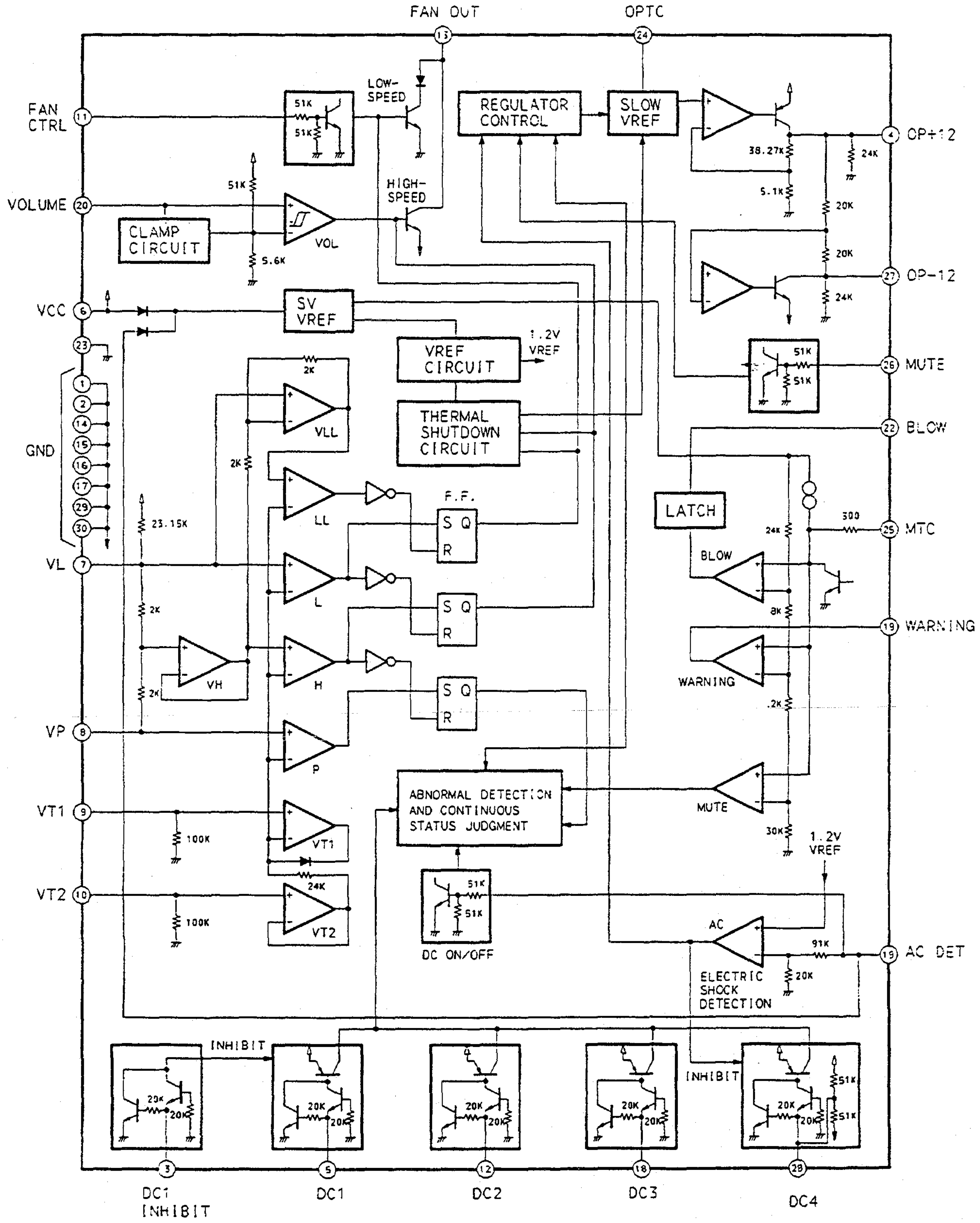
This circuit will blow primary fuse by Turning on output transistors when protection circuit have been activated. By this action other parts

may be dameged at the same time. Please check the parts, where current will flow when fuse blow circuit activates, that are shown in the diagram above.

（この回路では保護回路動作時、出力段TrをONすることにより１次側のヒューズを容断します．この際他のパーツが故障することもあります．ヒューズ容断時は上記の電流が流れる部品をあわせて確認下さい．）

2.4 IC BLOCK DIAGRAM
(IC ブロックダイアグラム)

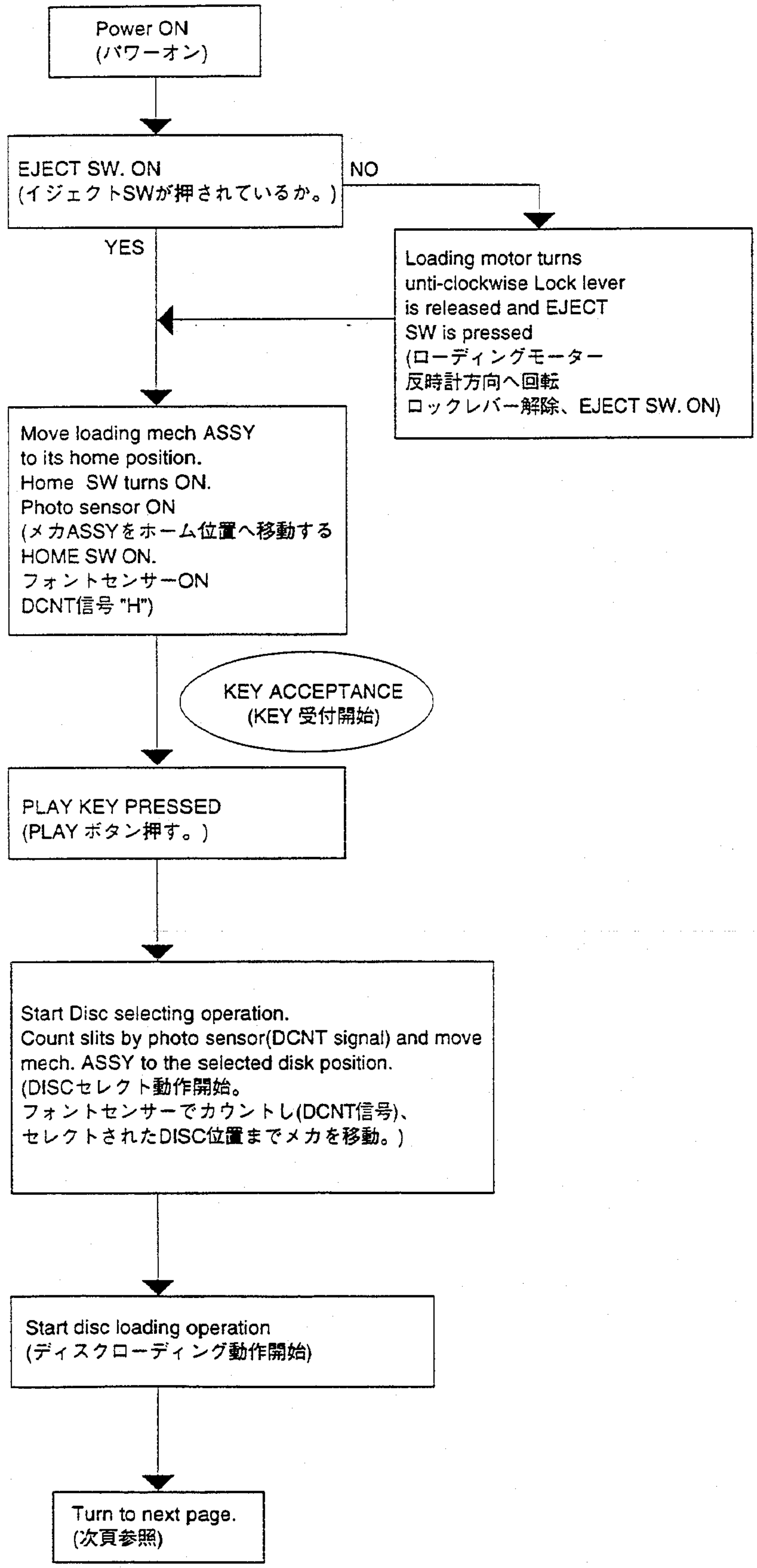
● PAC006B (IC7201)

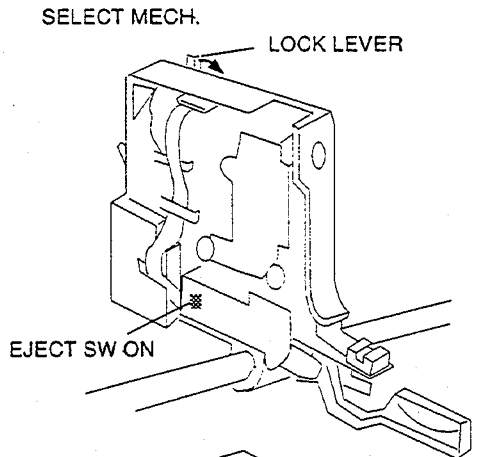

FAN OUT
OPTC
FAN CTRL
VOLUME
VCC
GND
VL
VP
VT1
VT2
OP+12
OP-12
MUTE
BLOW
MTC
WARNING
AC DET
DC1 INHIBIT
DC1
DC2
DC3
DC4
LOW-SPEED
HIGH-SPEED
CLAMP CIRCUIT
VOL
REGULATOR CONTROL
SLOW VREF
SV VREF
VREF CIRCUIT
1.2V VREF
THERMAL SHUTDOWN CIRCUIT
VLL
LL
L
H
P
VH
VT1
VT2
F.F.
S Q
R
LATCH
BLOW
WARNING
MUTE
ABNORMAL DETECTION AND CONTINUOUS STATUS JUDGMENT
DC ON/OFF
AC
ELECTRIC SHOCK DETECTION
INHIBIT
51K
5.6K
2K
23.15K
100K
24K
38.27K
5.1K
20K
300
8K
30K
91K

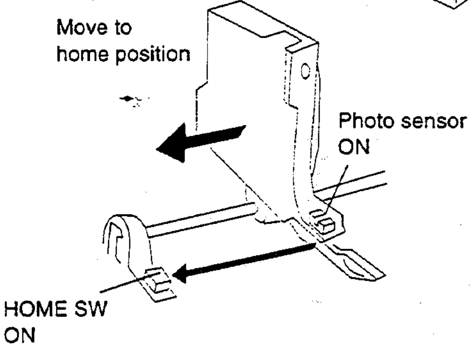
3. FLOW CHART (フローチャート)

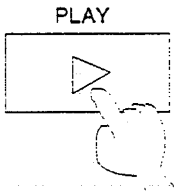
3. 1 GM MECH. ASSY (GM メカASSY)

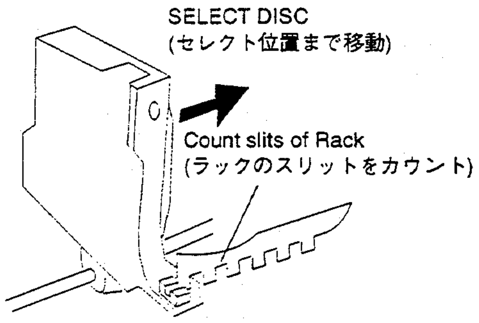
OPERATIONAL FLOW CHART(動作フロー)


Power ON
(パワーオン)
EJECT SW. ON
(イジェクトSWが押されているか。)
NO
YES
Loading motor turns
unti-clockwise Lock lever
is released and EJECT
SW is pressed
(ローディングモーター
反時計方向へ回転
ロックレバー解除、EJECT SW. ON)
Move loading mech ASSY
to its home position.
Home SW turns ON.
Photo sensor ON
(メカASSYをホーム位置へ移動する
HOME SW ON.
フォントセンサーON
DCNT信号 "H")
KEY ACCEPTANCE
(KEY 受付開始)
PLAY KEY PRESSED
(PLAY ボタン押す。)
Start Disc selecting operation.
Count slits by photo sensor(DCNT signal) and move
mech. ASSY to the selected disk position.
(DISCセレクト動作開始。
フォントセンサーでカウントし(DCNT信号)、
セレクトされたDISC位置までメカを移動。)
Start disc loading operation
(ディスクローディング動作開始)
Turn to next page.
(次頁参照)

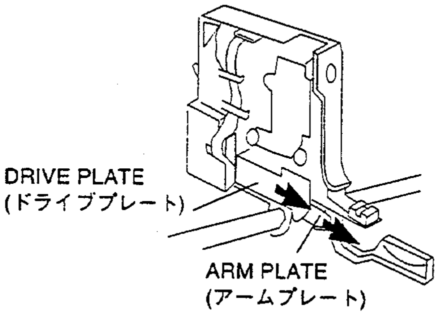

SELECT MECH.
LOCK LEVER
EJECT SW ON


Move to
home position
Photo sensor
ON
HOME SW
ON

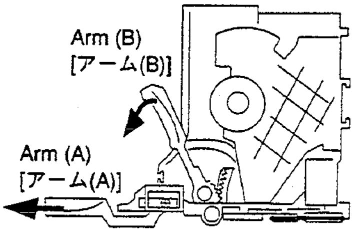



SELECT DISC
(セレクト位置まで移動)
Count slits of Rack
(ラックのスリットをカウント)

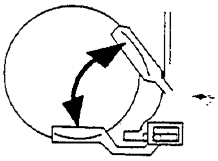
Start disc loading operation
Loading motor starts turning clockwise.
(ディスクローディング動作開始、
ローディングモーター時計方向へ
回転開始。)



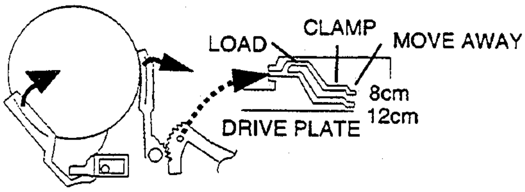
Drive plate & Arm plate start moving forwards.
(ドライブプレート、アームプレート前方へ
移動開始)



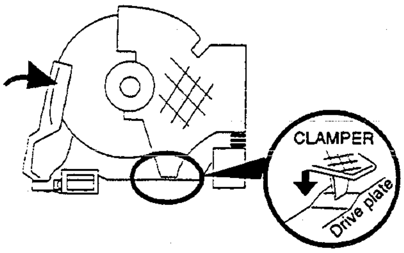
Arm (B) moves to the direction of the arrow
Arm (A), which is connected to Arm plate moves forwards.
(ドライブプレート上の溝に沿ってアーム(B)が矢印の方向
へ移動アームプレートに連結されたアーム(A)が前方へ移動)



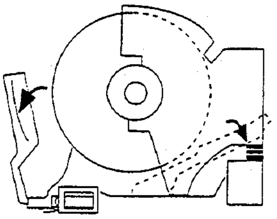
When Arm (B) catches the disc the distance between Arm (A) and Arm (B) is fixed.
The disc is catched by two arms
(アーム(B)が ディスクに当ると、ディスクの径に応じて
アーム (B)の位置決めがなされる。
ここでディスクがホールドされる)



Arm plate & Drive plate moves further on.
The Arm (A) and Arm (B) starts moving upwards holding the disc between each other
(アームプレート、ドライブプレートが更に前方へ移動
するとアーム (A)の回転軸がローディングベースの一つ目
の窪みに入りアーム (A)が上に上がり始める。
同時にアーム(B)はドライブプレートの溝によって上に
戻り始める。)

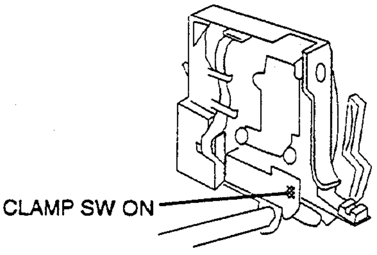


Disc is loaded in the mechanism and Arm plate stops.
Drive plate moves further on and Clamper slides down the slope on the Drive plate and clamps the disc.
(アーム (A)が上がり切ったところでアームプレートが停止、
ドライブプレートは更に前方へ進む。
ドライブプレートの傾斜に沿ってクランパーが下がり
ディスクがクランプされる。)



Drive plate moves further on and pushes the Arm (A) to move Arm (A) away from the disc. Also Arm (B) moves away from the disc due to the slit on the Drive plate.
(更にドライブプレートが移動し、アーム(A)を押しアーム (A)の回転軸が
ローディングベースの2つめの溝に押し込まれアーム(A)がディスクから
離れる方向に動く、またアーム(B)もドライブプレートの溝によりディス
クから離れる方向へ移動する。)

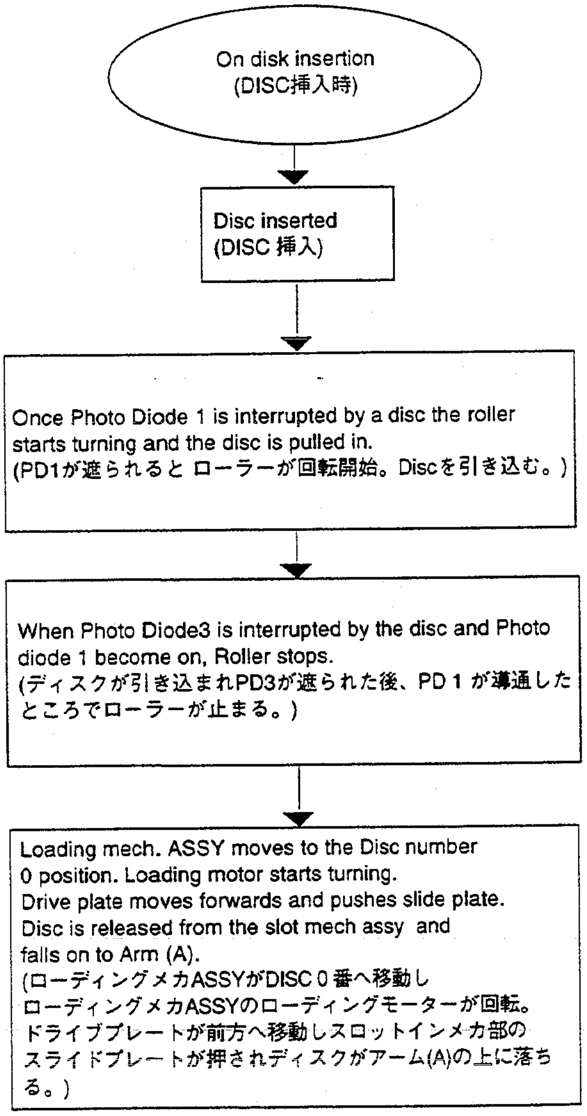
Drive plate moves and turns on CLAMP SW.
(ドライブプレートがCLAMP SWをONする。)



Loading motor stops and Servo operation starts.
(ローディングモーター回転 STOP
サーボ動作開始。)

3.2 CD SLOT-IN MECH. (SLOT-IN 部)

OPERATIONAL FLOW CHART (動作フロー)



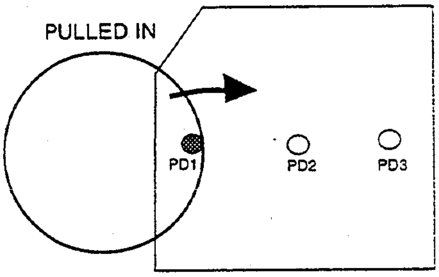
On disk insertion
(DISC挿入時)

Disc inserted
(DISC 挿入)

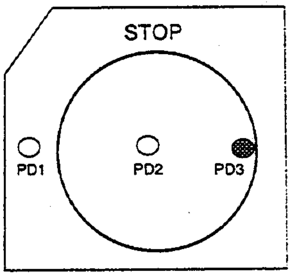
Once Photo Diode 1 is interrupted by a disc the roller starts turning and the disc is pulled in.
(PD1が遮られると ローラーが回転開始。Discを引き込む。)

When Photo Diode3 is interrupted by the disc and Photo diode 1 become on, Roller stops.
(ディスクが引き込まれPD3が遮られた後、PD 1 が導通したところでローラーが止まる。)

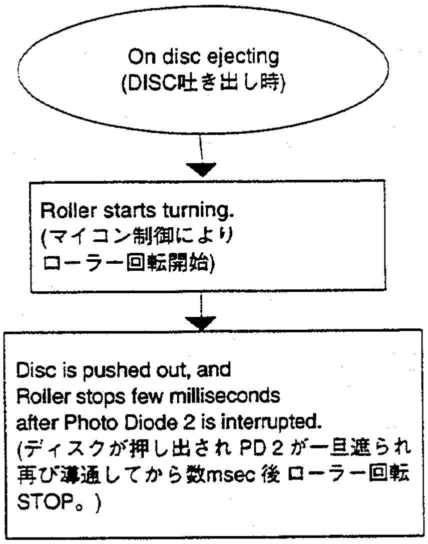
Loading mech. ASSY moves to the Disc number 0 position. Loading motor starts turning.
Drive plate moves forwards and pushes slide plate.
Disc is released from the slot mech assy and falls on to Arm (A).
(ローディングメカASSYがDISC 0 番へ移動し
ローディングメカASSYのローディングモーターが回転。
ドライブプレートが前方へ移動しスロットインメカ部の
スライドプレートが押されディスクがアーム(A)の上に落ちる。)



SLOT–IN MECH.



SLOT–IN MECH.



On disc ejecting
(DISC吐き出し時)

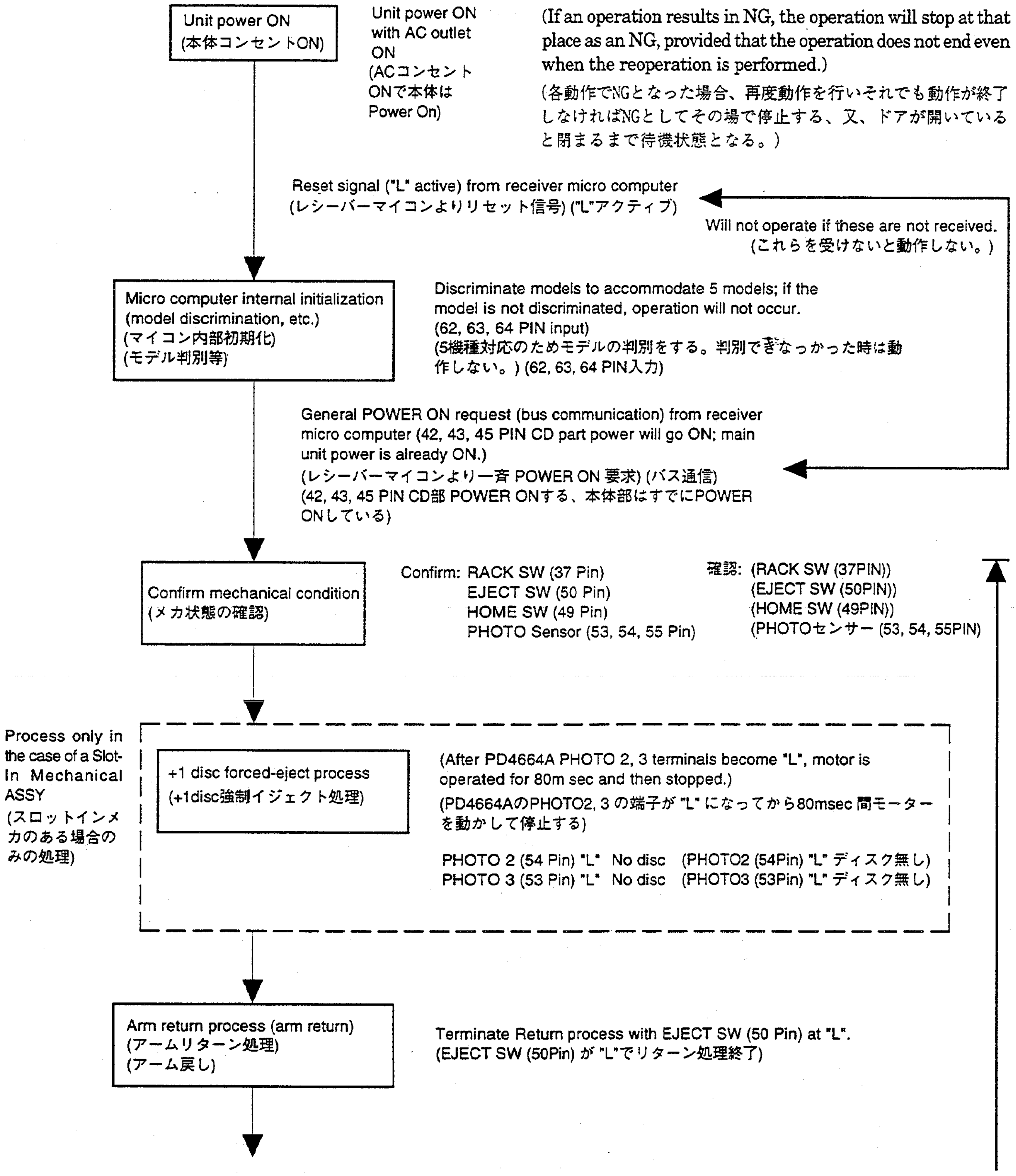
Roller starts turning.
(マイコン制御により
ローラー回転開始)

Disc is pushed out, and
Roller stops few milliseconds
after Photo Diode 2 is interrupted.
(ディスクが押し出され PD 2 が一旦遮られ
再び導通してから数msec 後 ローラー回転
STOP。)

3.3 GM MECH. CD MICRO-COMPUTER (GMメカ CDマイコン)
EX. PD4644A (IC8001: CD ASSY) for XR-P760F

OPERATIONAL FLOW CHART (動作フロー)

•Sequence when AC outlet is ON (AC コンセントON時のシーケンス)


Unit power ON
(本体コンセントON)
Micro computer internal initialization
(model discrimination, etc.)
(マイコン内部初期化)
(モデル判別等)
Confirm mechanical condition
(メカ状態の確認)
+1 disc forced-eject process
(+1disc強制イジェクト処理)
Arm return process (arm return)
(アームリターン処理)
(アーム戻し)

Unit power ON with AC outlet ON
(ACコンセントONで本体はPower On)

(If an operation results in NG, the operation will stop at that place as an NG, provided that the operation does not end even when the reoperation is performed.)
(各動作でNGとなった場合、再度動作を行いそれでも動作が終了しなければNGとしてその場で停止する、又、ドアが開いていると閉まるまで待機状態となる。)

Reset signal ("L" active) from receiver micro computer
(レシーバーマイコンよりリセット信号) ("L"アクティブ)

Will not operate if these are not received.
(これらを受けないと動作しない。)

Discriminate models to accommodate 5 models; if the model is not discriminated, operation will not occur.
(62, 63, 64 PIN input)
(5機種対応のためモデルの判別をする。判別できなかった時は動作しない。) (62, 63, 64 PIN入力)

General POWER ON request (bus communication) from receiver micro computer (42, 43, 45 PIN CD part power will go ON; main unit power is already ON.)
(レシーバーマイコンより一斉 POWER ON 要求) (バス通信)
(42, 43, 45 PIN CD部 POWER ONする、本体部はすでにPOWER ONしている)

Confirm: RACK SW (37 Pin)
EJECT SW (50 Pin)
HOME SW (49 Pin)
PHOTO Sensor (53, 54, 55 Pin)

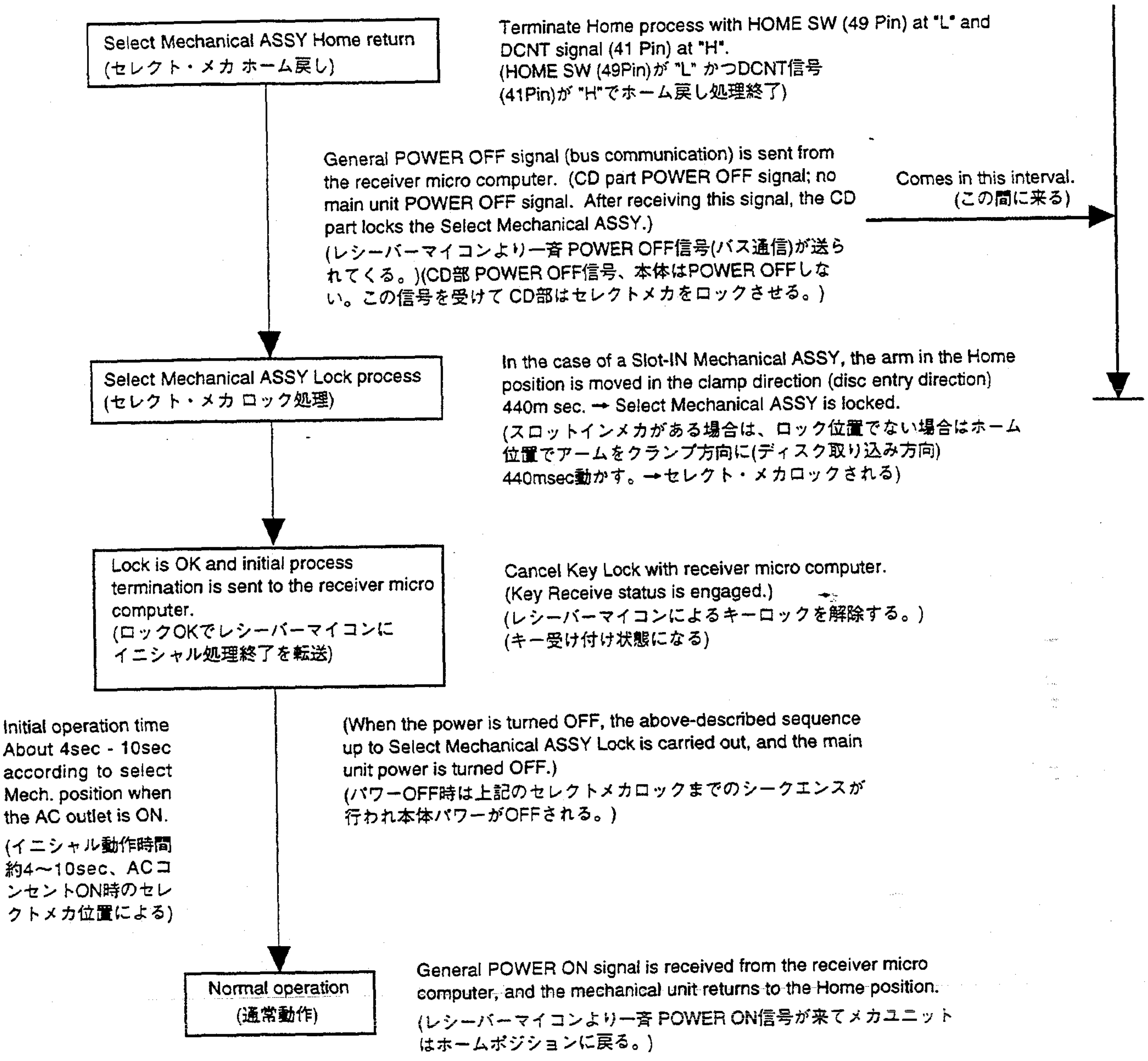
確認: (RACK SW (37PIN))
(EJECT SW (50PIN))
(HOME SW (49PIN))
(PHOTOセンサー (53, 54, 55PIN)

Process only in the case of a Slot-In Mechanical ASSY
(スロットインメカのある場合のみの処理)

(After PD4664A PHOTO 2, 3 terminals become "L", motor is operated for 80m sec and then stopped.)
(PD4664AのPHOTO2, 3 の端子が "L" になってから80msec 間モーターを動かして停止する)

PHOTO 2 (54 Pin) "L" No disc (PHOTO2 (54Pin) "L" ディスク無し)
PHOTO 3 (53 Pin) "L" No disc (PHOTO3 (53Pin) "L" ディスク無し)

Terminate Return process with EJECT SW (50 Pin) at "L".
(EJECT SW (50Pin) が "L"でリターン処理終了)



Select Mechanical ASSY Home return
(セレクト・メカ ホーム戻し)

Terminate Home process with HOME SW (49 Pin) at "L" and DCNT signal (41 Pin) at "H".
(HOME SW (49Pin)が "L" かつDCNT信号(41Pin)が "H"でホーム戻し処理終了)

General POWER OFF signal (bus communication) is sent from the receiver micro computer. (CD part POWER OFF signal; no main unit POWER OFF signal. After receiving this signal, the CD part locks the Select Mechanical ASSY.)
(レシーバーマイコンより一斉 POWER OFF信号(バス通信)が送られてくる。)(CD部 POWER OFF信号、本体はPOWER OFFしない。この信号を受けて CD部はセレクトメカをロックさせる。)

Comes in this interval.
(この間に来る)

Select Mechanical ASSY Lock process
(セレクト・メカ ロック処理)

In the case of a Slot-IN Mechanical ASSY, the arm in the Home position is moved in the clamp direction (disc entry direction) 440m sec. → Select Mechanical ASSY is locked.
(スロットインメカがある場合は、ロック位置でない場合はホーム位置でアームをクランプ方向に(ディスク取り込み方向) 440msec動かす。→セレクト・メカロックされる)

Lock is OK and initial process termination is sent to the receiver micro computer.
(ロックOKでレシーバーマイコンにイニシャル処理終了を転送)

Cancel Key Lock with receiver micro computer.
(Key Receive status is engaged.)
(レシーバーマイコンによるキーロックを解除する。)
(キー受け付け状態になる)

Initial operation time About 4sec - 10sec according to select Mech. position when the AC outlet is ON.
(イニシャル動作時間約4〜10sec、ACコンセントON時のセレクトメカ位置による)

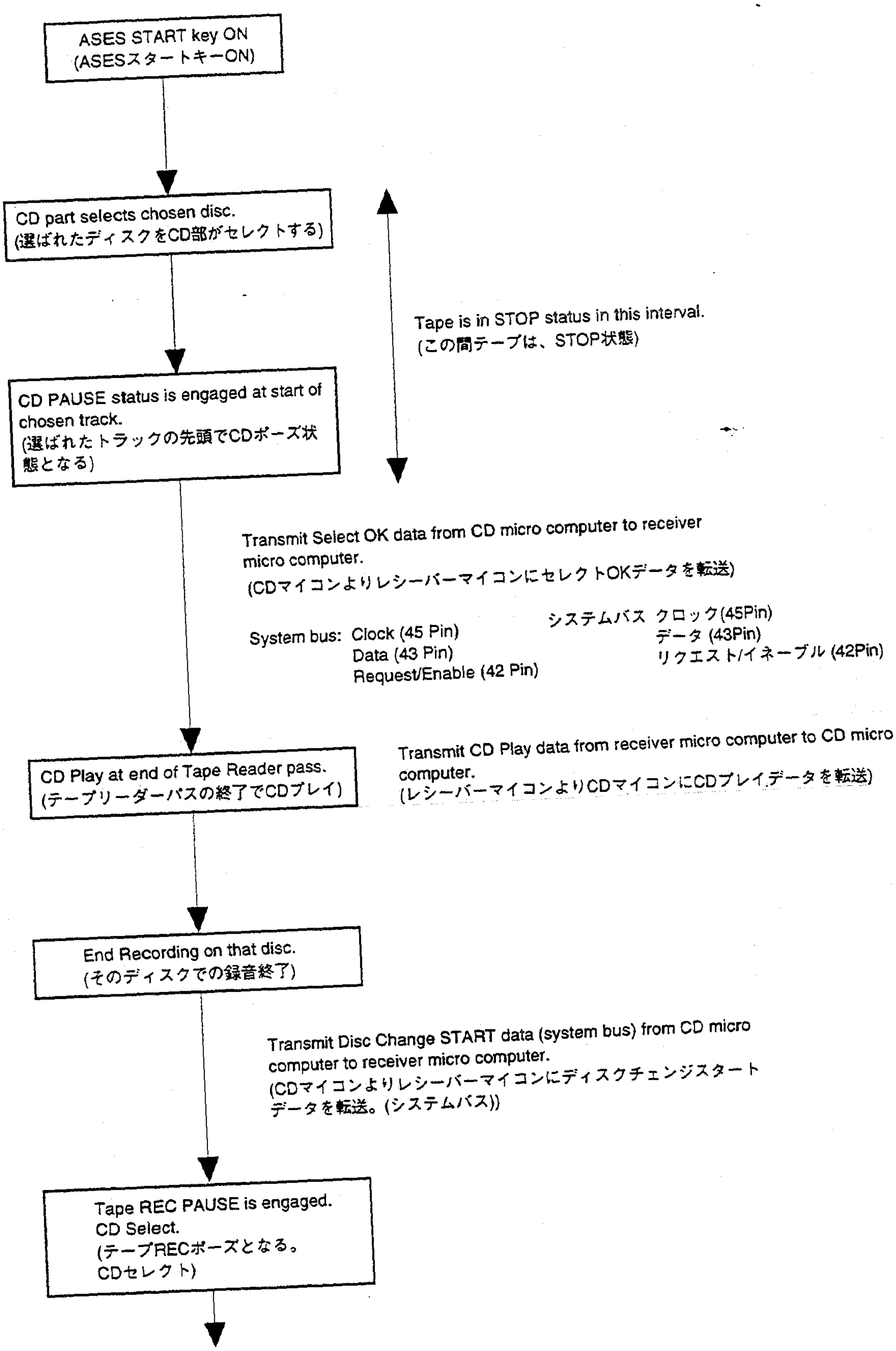
(When the power is turned OFF, the above-described sequence up to Select Mechanical ASSY Lock is carried out, and the main unit power is turned OFF.)
(パワーOFF時は上記のセレクトメカロックまでのシークエンスが行われ本体パワーがOFFされる。)

Normal operation
(通常動作)

General POWER ON signal is received from the receiver micro computer, and the mechanical unit returns to the Home position.
(レシーバーマイコンより一斉 POWER ON信号が来てメカユニットはホームポジションに戻る。)

- Sequence during Program ASES (Program is incorporated and sequence starts from CD STOP status)

(● プログラムASESの時のシーケンス) (プログラムが組まれていてCD ストップ状態からのシーケンス)



ASES START key ON
(ASESスタートキーON)

CD part selects chosen disc.
(選ばれたディスクをCD部がセレクトする)

Tape is in STOP status in this interval.
(この間テープは、STOP状態)

CD PAUSE status is engaged at start of chosen track.
(選ばれたトラックの先頭でCDポーズ状態となる)

Transmit Select OK data from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにセレクトOKデータを転送)

System bus: Clock (45 Pin)
Data (43 Pin)
Request/Enable (42 Pin)

システムバス クロック(45Pin)
データ (43Pin)
リクエスト/イネーブル (42Pin)

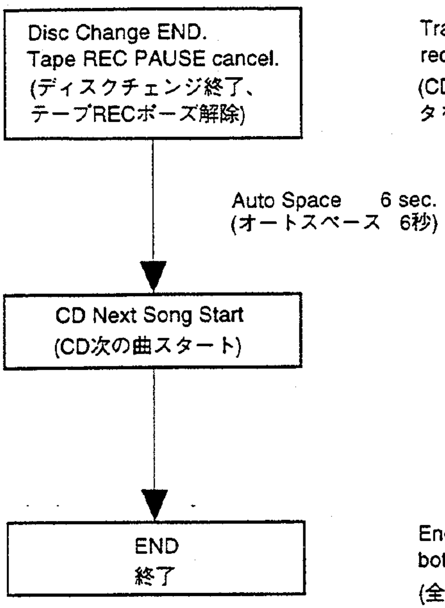
CD Play at end of Tape Reader pass.
(テープリーダーパスの終了でCDプレイ)

Transmit CD Play data from receiver micro computer to CD micro computer.
(レシーバーマイコンよりCDマイコンにCDプレイデータを転送)

End Recording on that disc.
(そのディスクでの録音終了)

Transmit Disc Change START data (system bus) from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにディスクチェンジスタートデータを転送。(システムバス))

Tape REC PAUSE is engaged.
CD Select.
(テープRECポーズとなる。
CDセレクト)


Disc Change END.
Tape REC PAUSE cancel.
(ディスクチェンジ終了、
テープRECポーズ解除)
Auto Space 6 sec.
(オートスペース 6秒)
CD Next Song Start
(CD次の曲スタート)
END
終了

Transmit Disc Change END data from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにディスクチェンジ終了データを転送)

(Minimum time between songs on tape
During disc changeover: 6 sec.
Within songs on same disc: 5 sec.)

(テープ曲間最短時間
DISC 交換時:6sec
同DISC内曲時:5sec)

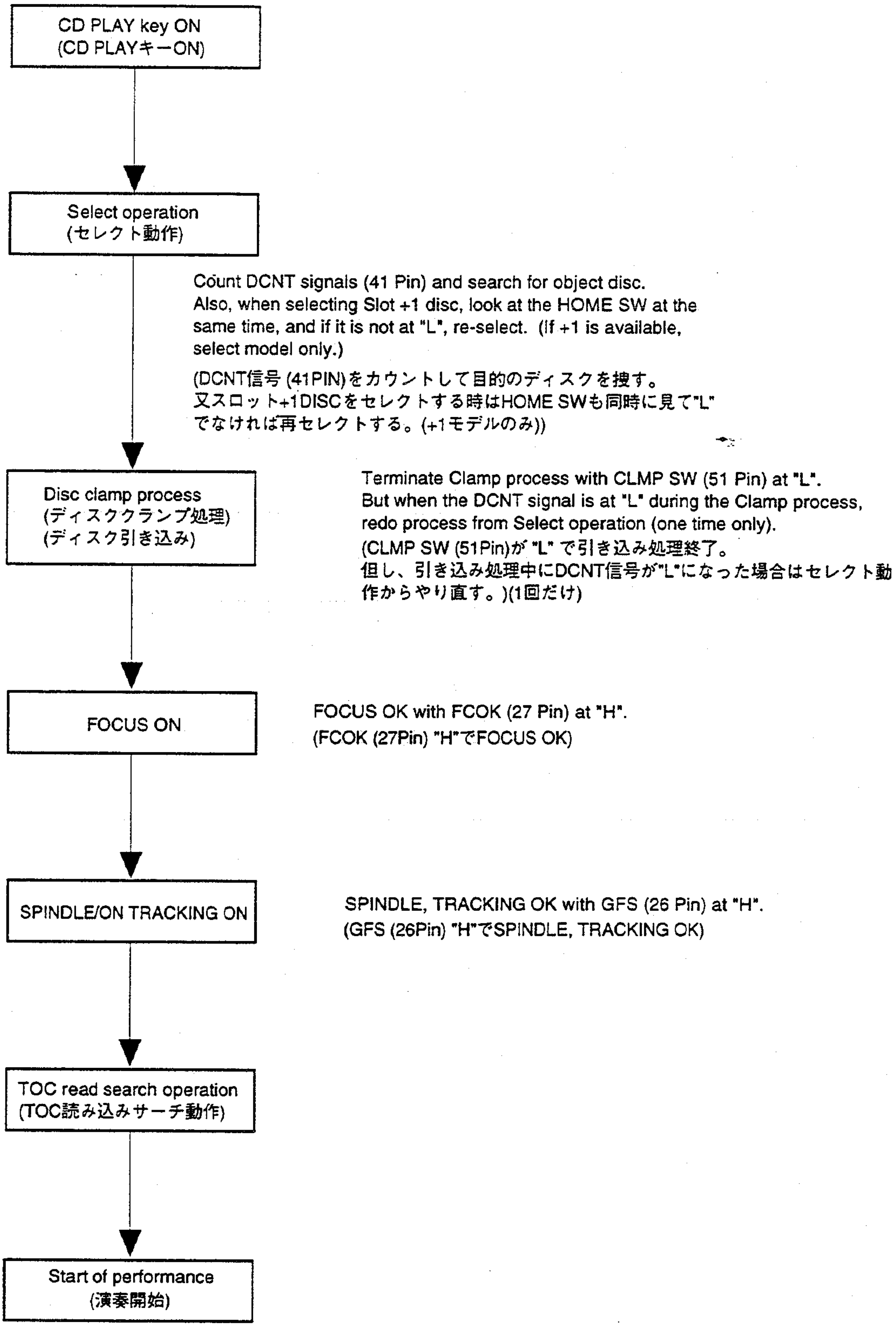
Engage ASES END at end of recording of all songs, and stop both Tape and CD. Program remains as it is.
(全曲録音終了でASES END、テープ、CDとも ストップする。プログラムはそのまま残る。)

Reference DISC changeover time
From DISC STOP of 1st disc to DISC PLAY of 2nd disc: about 6 sec.
From DISC STOP of 1st disc to DISC PLAY of 25th disc: about 10 sec.

(参考 DISC交換時間
1枚目DISC STOPから2枚目DISC PLAYまで:約6sec
1枚目DISC STOPから25枚目DISC PLAYまで:約10sec)

- Sequence during PLAY operation (from Mechanical ASSY Home standby at CD function)

(• PLAY操作時のシーケンス) (ファンクションCDでメカ・ホーム待機中から)


CD PLAY key ON
(CD PLAYキーON)
Select operation
(セレクト動作)
Disc clamp process
(ディスククランプ処理)
(ディスク引き込み)
FOCUS ON
SPINDLE/ON TRACKING ON
TOC read search operation
(TOC読み込みサーチ動作)
Start of performance
(演奏開始)

Count DCNT signals (41 Pin) and search for object disc. Also, when selecting Slot +1 disc, look at the HOME SW at the same time, and if it is not at "L", re-select. (If +1 is available, select model only.)

(DCNT信号 (41PIN)をカウントして目的のディスクを捜す。 又スロット+1DISCをセレクトする時はHOME SWも同時に見て"L" でなければ再セレクトする。(+1モデルのみ))

Terminate Clamp process with CLMP SW (51 Pin) at "L". But when the DCNT signal is at "L" during the Clamp process, redo process from Select operation (one time only).

(CLMP SW (51Pin)が "L" で引き込み処理終了。 但し、引き込み処理中にDCNT信号が"L"になった場合はセレクト動作からやり直す。)(1回だけ)

FOCUS OK with FCOK (27 Pin) at "H".

(FCOK (27Pin) "H"でFOCUS OK)

SPINDLE, TRACKING OK with GFS (26 Pin) at "H".

(GFS (26Pin) "H"でSPINDLE, TRACKING OK)

3.4 IC INFORMATION (IC情報)

Pin No.	Symbol	Name	I/O	Description	Remarks
1	P94/FIP6	G6	O	FL drive DIGIT output (FL 駆動用DIGIT出力)	Outputs "L"
2	P93/FIP5	G5	O		
3	P92/FIP4	GRID G4	O		
4	P91/FIP3	G3	O		
5	P90/FIP2	G2	O		
6	P81/FIP1	G1	O		
7	P80/FIP0	G0	O		
8	Vdd	+5V	—		
9	P27	DISP CLK	O	Clock output for display data transmission (表示データー送信用クロック)	
10	P26	DISP DATA	O	Data output for display	
11	P25	MUTE	O	Muting control output	"H" MUTE
12	P24	‾XRST	O	Reset for LSI	"‾|_|‾": Reset
13	P23	‾XLAT	O	LSI control data latch pulse	"‾|_|‾": Latch
14	SCK1	CD CLK	O	LSI serial clock output	Serial clock for LSI
15	SO1	CD DATA	O	LSI control data serial output	LSI control data
16	SI1	SQSO	I	Subcode Q-data serial input	Subcode data input
17	RESET	‾RST	I	CPU reset	CPU reset "‾|_|‾"
18	P74	‾LD ON	O	Laser diode control output	"L": ON ; "H": OFF
19	P73	‾XTAL ON/OFF	O	LSI oscillation control output	"L": oscillation ; "H": Stop
20	AVss	GND	—		
21	P17	CD-G CE	O	CD-G control latch pulse	Outputs "L" with models that have no CD-G (CD-Gのないモデルでは "L"を出力する)
22	P16	CD-G MUTE	O	CD-G muting output	
23	P15	(CD-G RST)	O	Unused	
24	P14	(CD-GNTSC)	O	Unused	
25	P13	SENS	I	LSI operating status multi-mode input (LSI動作状態多モード入力)	
26	P12	GFS	I	Frame synchronizing Lock input (フレームシンクロック入力)	"H" GFS OK
27	P11	FCOK	I	Focus OK input	"H" FOCUS OK
28	P10	POWER ON	O	NC	LSI power ON/OFF (Unused)
29	AVdd	+5V	—		
30	AVref	GND	—		

Pin No.	Symbol	Name	I/O	Description	Remarks
31	P04	INSD	I	Slider INSIDE SW input	"L" INSD SW ON
32	XT2	Open	—		
33	Vss	GND	—		
34	X1	Main system	—		
35	X2	Clock (4.19M)	—		
36	P37	TEST	I		"H" TEST
37	P36	- DOOR CLOSE	I	RACK SW input	"L" Close completed
38	P35	- DOOR OPEN	I	Pull Up except for motorized door (電動ドア以外はプルアップ)	"L" Open completed (Unused)
39	P34	DSLT	O	Select motor output	Select motor Output
40	P33	DSRT	O		
41	P32	DCNT	I	Disc count pulse input	Disc count pulse
42	P31	SB REQ/ENA	I/O	System bus communication Request/Enable	System bus Request or Enable
43	P30	SB DATA	I/O	System bus communication data input/output	System bus data IN/OUT
44	INTP3	SCOR	I	Subcode synchronizing input	↓ : Subcode synch
45	INTP2	SB CLK	I	System bus communication clock input	↑ , ↓ : System bus clock
46	INTP1	STBYRELE	I	CPU Stop mode cancel pulse	↓ : Micro computer Standby mode cancel input
47	INTP0	RMDT	I	Remote control data input	↓ :Remote control data
48	IC(VPP)	GND	—		
49	P72	- HOME	I	Disc select HOME SW input	"L": Mechanical HOME position
50	P71	- EJECT	I	Loading out SW input	"L": Eject completed
51	P70	- CLMP	I	Clamp completion SW input	"L": Clamping completed
52	Vdd	+5V	—		
53	P127	P1S3	I	Slot part photo sensor input (Pull Up with models where Slot Mechanical ASSY+1 is not loaded) (+1のない機種はプルアップ)	+1 part photo sensor input
54	P126	P1S2	I		
55	P125	P1S1	I		
56	P124	IN1	O	Output for +1 Eject /Load (Output "L" for models where Slot Mechanical ASSY +1 is not loaded. Set to NC) (+1のない機種は出力 "L" です。NC)	Output for +1 Eject / Load
57	P123	OUT1	O		
58	P122	L IN	O	Loading mechanical output	Loading mechanical output
59	P121	L OUT	O		
60	P120	DOOR IN	O	Output "L" for models without motorized door. Set to NC (電動ドアでない機種は出力 "L" です。NC)	Motorized door output (Unused)
61	P117	DOOR OUT	O		

Pin No.	Symbol	Name	I/O	Description	Remarks
62	P116	KD2	I	Model discrimination input	Key data input
63	P115	KD1	I		
64	P114	KD0	I		
65	P113	(LED RACK)	O	NC	"L" output (Unused)
66	P112/FIP20	S10	O	FL drive SEG output (FL 駆動用 SEG 出力)	SEG for sending Outputs "L" with XR-P260F, XR-P560F, XR-P760F. Set to NC. (XR-P260F, XR-P560F, XR-760F では "L" を出力。NC)
67	P111/FIP19	S8	O		
68	P110/FIP18	SEG S0	O		
69	P107/FIP17	S1	O		
70	P106/FIP16	S5	O		
71	Vload		—	GND or FLAC	Set to GND with XR-P260F, XR-P560F, XR-P760F and to FLAC with PD-Q160F, PD-F25
72	P105/FIP15	S6	O		
73	P104/FIP14	S7	O		
74	P103/FIP13	S2	O		
75	P102/FIP12	S3	O		
76	P101/FIP11	S4	O		
77	P100/FIP10	S9	O		
78	P97/FIP9	LED STYB	O	Stand by LED output (PD-F25 only)	LED standby
79	P96/FIP8	LED RED	O	Selector LED output	LED red "H" is illuminated.
80	P95/FIP7	LED GR	O		LED green "H" is illuminated.

Selector output and operation
(セレクター出力、動作)

PIN		STOP	Send right	Send left
39	DSLT	L	L	H
40	DSRT	L	H	L

+1 Eject/Load
(+1 イジェクト/ロード)

PIN		STOP	Eject	Loading
56	IN1	L	L	H
57	OUT1	L	H	L

Loading mechanical output
(ローディングメカ出力)

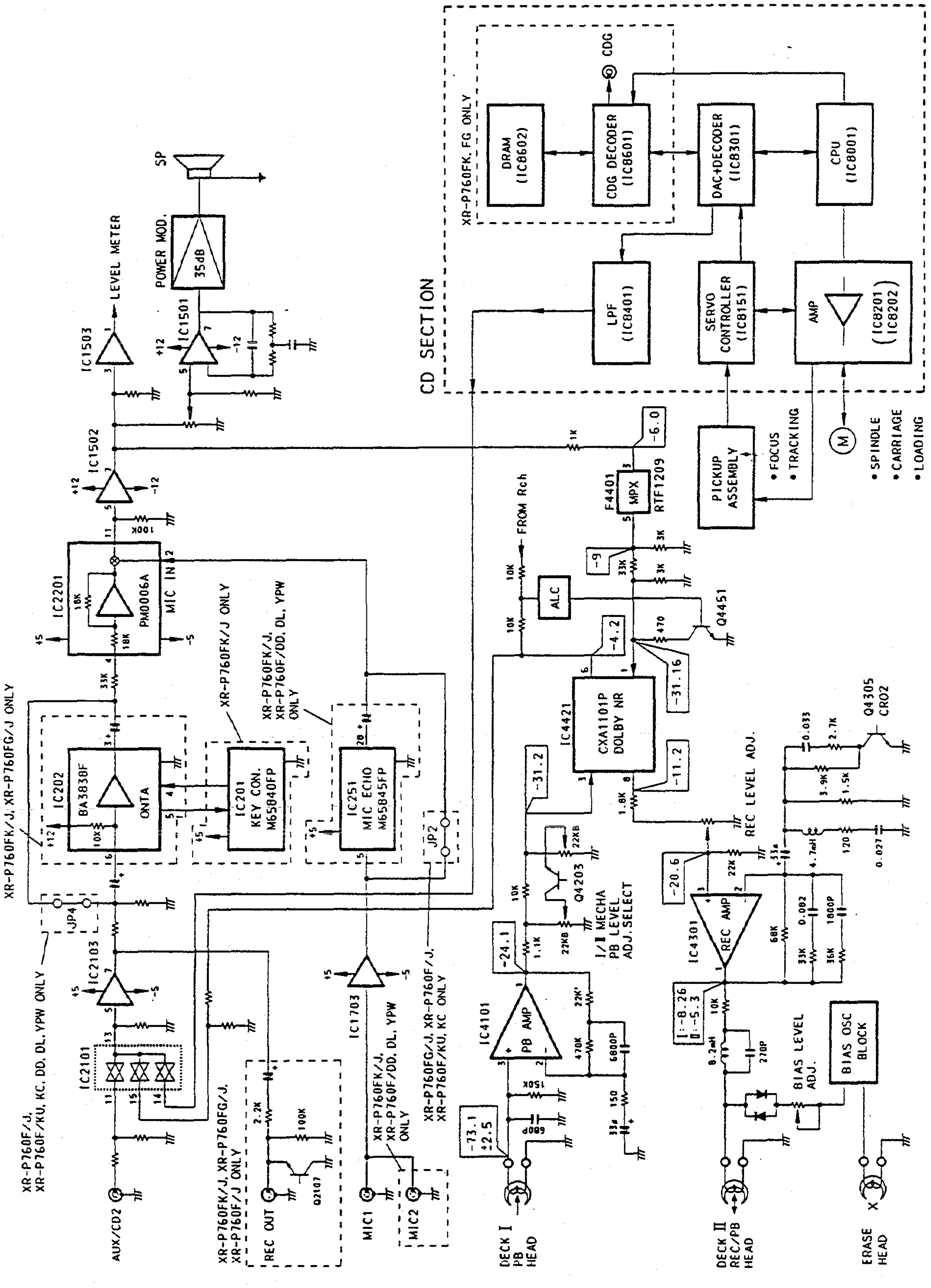
PIN		STOP	Clamp	Return
58	LIN	L	L	H
59	LOUT	L	H	L

Note: The port output contents change with switching of the model discription terminal (pins 62-64) in the following table.

(注意：下表のモデル判別用端子(62-64 pin) の切換えでポート出力内容が変わります。)

PIN		PD-Q160F	PD-F25	XR-P260F	XR-P560F	XR-P760F	XR-P760F/J
64	KD0	H	H	L	H	L	L
63	KD1	H	H	H	L	L	H
62	KD2	H	L	H	H	H	L

4. BLOCK DIAGRAM (ブロックダイアグラム)


CD SECTION
XR-P760FK, FG ONLY
DRAM (IC8602)
CDG DECODER (IC8601)
CDG
DAC+DECODER (IC8301)
CPU (IC8001)
LPF (IC8401)
SERVO CONTROLLER (IC8151)
AMP (IC8201) (IC8202)
PICKUP ASSEMBLY
• FOCUS
• TRACKING
M
• SPINDLE
• CARRIAGE
• LOADING
SP
POWER MOD. 35dB
LEVEL METER
IC1503
IC1501
IC1502
IC2201 PM0006A
MIC IN
IC202 BA3838F ONTA
IC201 KEY CON. M65840FP
IC251 MIC ECHO M65845FP
JP2
JP4
IC2103
IC2101
IC1703
XR-P760FK/J, XR-P760FG/J ONLY
XR-P760FK/J ONLY
XR-P760FK/J, XR-P760F/DD, DL, YPW ONLY
XR-P760FK/J, XR-P760F/DD, DL, YPW ONLY
XR-P760F/J, XR-P760F/KU, KC, DD, DL, YPW ONLY
XR-P760FK/J, XR-P760FG/J, XR-P760F/J ONLY
XR-P760FG/J, XR-P760F/J, XR-P760F/KU, KC ONLY
AUX/CD2
REC OUT
Q2107
MIC1
MIC2
FROM Rch
F4401 MPX RTF1209
-6.0
-9
ALC
Q4451
-4.2
-31.16
IC4421 CXA1101P DOLBY NR
-11.2
-31.2
Q4203
I/II MECHA PB LEVEL ADJ. SELECT
-24.1
IC4101 PB AMP
-73.1 ±2.5
DECK I PB HEAD
REC LEVEL ADJ.
Q4305 CR02
-20.6
IC4301 REC AMP
I: -8.26
II: -5.3
BIAS LEVEL ADJ.
BIAS OSC BLOCK
DECK II REC/PB HEAD
ERASE HEAD